

THE AMERICAN FARMER,



SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY.

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"AGRICOLAS." Virg.

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NO. 7.

WORK FOR JANUARY.

Ere we venture to call your attention to those duties which should claim your attention on the Farm, we would be permitted to tender you our most sincere wishes, that the new year may find you in the possession of health, prosperity and happiness to enable you the better to enjoy its advent,—and that it may please Divine Providence to bless you and yours, through a long series of years with all that renders life a pleasurable existence, and so direct your pilgrimage here, as to vouchsafe a blissful state hereafter. And while we would thus speak of another and a better world, we would not desire to be considered as wishing to deny those rational amusements in which the young so delight to participate, and by which the old may profit; for we are of those who believe that the human heart may be gladdened and luxuriate in worldly pleasures, well regulated pleasures, without giving offence to the Great Source of our being; and are, therefore, never so happy as when we see the juvenile and the gay giving evidence by outward marks, that the mind within is not only at ease, but in possession of those exquisite emotions which lend a buoyancy to hope, and throw a charm around the social circle.

We had intended simply to salute you with the compliments of the season, but we find that we have incontinently been reading a moral homily, and must therefore turn from that, to afford us time to prepare our monthly memoranda of things which may advantageously be done.

ON THE FARM.

Duties of the Agriculturist.—In this month of frost and snow, it may seem to the superficial observer that there are but few duties to perform, but such is not the fact. It is true that crops are all garnered, much of the crop of last year marketed, and the proceeds of the sales disposed of; but still the far-seeing and notable agriculturist has much to attend to in despite of weather and storm. He who desires to prosper, knows that, in vigilance and careful watching over his every interest, alone depends the success of his next season's operations. He should know too, as the

times now go, more is to be realized by a wise economy and husbanding of his means than in any other way. Franklin wisely observed, that a penny saved is two pence gained, and in so saying he did not mean to impress upon his reader the value of any idea connected with parsimony or meanness, but simply to enforce the necessity which existed in the affairs of all men, to avoid that rock upon which the prospects of so many of us are wrecked—prodigality. To save, in the sense justified by prudence, is the duty of every one, because in thus saving, we do not impinge upon that spirit of generous hospitality which renders the home of the frugal farmer not only dear to himself, but to his friends also, as without the means to enable him to do so, many of those offices of good neighborhood which bind men together by ties as strong as those of kindred, must be intermittent. In what this saving must be, then, becomes a matter of serious concernment, and that each may the more easily comprehend our meaning, we will endeavor to explain ourselves. It is a custom more honored in the breach than in the observance, for farmers in easy circumstances to confide to their slaves the duty of feeding out grain to the horses and cattle, and hence it is that often in the spring, when the working beasts are wanted to fulfil the labors of the road and field, that they are in much lower condition than their owners had a right to expect to find them. And why is this so? Simply because the master, or his manager, had failed to see that his beasts really received the manger food which he had allotted them, and consequently, through neglect much of it had found its way to some neighboring grocery.

It is wise economy to keep a farm book in which should not only be registered at least once a week ahead, every operation to be performed on the farm—a note made each succeeding night what had been done, and what omitted—the expenses of the family of every kind should be regularly kept, every sale of produce noted, so that at the end of the year one may know whether he is really making or losing by his operations.

Every possible care should be taken to make man-

ure and *preserve* it from the deteriorating influence of exposure to the weather, as one load well made and thus *protected*, is worth two which may have been left to waste its substance under the action of each succeeding rain or dissolving snow.

Grain fields.—It should be the duty of all once in every two weeks to have the water furrows in his grain fields examined, and every impediment to the free passage of the water removed, in order that the growing plants may not be injured by being exposed to a superabundance of water.

Fire Wood.—We feel that we cannot too often impress upon the minds of our brethren the propriety of early attention to having a full supply of fire wood hauled into, and neatly piled away in their yards, as delay in this matter not only subjects one's family to inconvenience and discomfort, but imposes upon the beasts of burthen an onerous duty of hauling over bad roads, which might be avoided by timely attention. When we speak of a *full supply*, we mean enough to carry us through the spring as well as winter.

Fencing.—All the necessary timber for fencing should be felled and drawn into the barn yard, so that the hands may be employed in wet days in the barn, when they cannot work out of doors in giving shape to the rails and morticing the post holes, for as idleness is the mother of evil, so should it be the duty of every master to see that his hands have labor when the weather is inclement.

Winter Ploughing.—As stiff lands are improved by exposure to the winter frosts, every opportunity, where such grounds may be in condition, should be embraced through the winter to plough.

Sheds for Cattle.—If your cattle are without sheds, provide them, although you may not have it in your power to give to such sheds a better roofing than you can make with straw, topped with pine brush—any protection is better than none, and the better that protection may be the farther will your provender go.

Grain in the Straw.—Get all your grain which may be thus situated threshed out, so as you may be in a condition to avail yourself of the rise of the market.

Store-hands and in-pig Sows.—See that these have warm dry lodgings and are properly fed.

Milch Cows.—Feed these generous animals well, and they will repay your care with ten-fold interest.

Young Stock of all kinds should be cared for—though it is bad policy to gorge them, they should receive proper quantities of long feed, be kept in a growing condition, and protected by warm shelter from the weather. Their sheds should be separate from those in which the old stock are kept.

Implements, Tools and Gearing.—It should be the duty of every careful husbandman to keep every thing of this kind under shelter, and once a week to examine them, in order that if any require repairs they may receive them. All gearing should be well rubbed with a composition of four parts oil or tallow

and one of beeswax, before being put away. It gives elasticity to the leather and consequently imparts lastingness to it.

Sheep.—For the management of your Sheep, we refer you to our article of last month.

Salting Stock.—Stock of all kinds are the better of receiving salt twice a week. To your horses, if you mix with their food a handful of hickory ashes, finely sifted once a week, their health will be improved by it.

Manure and Composts.—Let every thing which is convertible into manure be thrown on your manure piles, so that your corn crops next spring may have plenty of food. Don't permit your soap suds to be wasted, as they contain a very sensible trace of potash which is eminently useful. Instead of permitting them to be thrown away as is too often the case, make your washwoman, or some one else throw them on your manure heap, or have a few loads of earth hauled near your kitchen, and have your suds thrown thereon. Every week's washing of a family of twenty will make a load of ordinary dirt good manure.

IN THE GARDEN.

Grape Vines.—These may be pruned any time during this month and the next.

Tenacious beds.—If your gardens contain any stiff clayey beds, they will be benefitted by being spaded up, and left unranked to the mouldering influence of the frost.

Garden Tools.—If these, of every description, have not already been carefully housed, it is time they should be.

A BRIEF COMPEND OF AMERICAN AGRICULTURE. By R. L. ALLEN. New-York, Saxon & Miles. Buffalo, T. & M. Butler. 12mo. pp. 447—91.

We have received from the publishers, a copy of this work, and deem it worthy an extensive circulation, compressing, as it does, into a small compass a large amount of most valuable matter. We feel that we cannot do better than by transferring to our columns, the following notice of it, from the last No. of Downing's "Horticulturist," in place of any more extended remarks of our own:

It is really a great satisfaction to get hold of an American treatise on Agriculture, that has a plain, practical, common sense character of its own. So many mere patchers and compilers are there, who, without any practical knowledge of their own, use their scissors shamelessly upon the productions of English authors, thus readily making books without taxing their own poor brains, books too, that are really of no value in this climate and country—books that only serve to puzzle and bewilder the farming novice—that, we repeat, it is with unusual satisfaction we have opened this new, compact duodecimo volume.

Mr. R. L. ALLEN, of Buffalo, the author of this work, is already known to the agricultural public as a thorough practical farmer and stock breeder. That he well knows what he is about on a farm, these pages abundantly show. No mere book-maker could have written such a book; and we may add, also,

that no mere practical farmer could have written it. A "good practical work" can only be written by a man who has both thought and acted well.

What distinguishes this volume, is its conciseness, its clearness, and its perspicuous treatment of the subject in hand. The reason why most agricultural works are prolix and heavy, is because their authors had not made the subject thoroughly their own. No man can write clearly and plainly about what he possesses only indistinct and confused notions himself. And no man can have clear and distinct ideas, regarding any practical subject like agriculture, however conversant he may be with *Stevens' Book of the Farm*, *London's Encyclopedia* or *Von Thaer's Principles*, unless he is able to digest all the more valuable theories contained in these works in his every day practice. Otherwise it is only like Calvin Elson, the walking skeleton, dining on roast beef and plum pudding.

What American farmers want, as we conceive, at the present moment, are plain and sensible reasons for our best agricultural practice as it is, and equally common-sense hints, and directions for its improvement. Books written upon such a plan, by competent men, will go a thousand times farther toward making good husbandmen, and improving those already skilful, than a republication of all the elaborate English, French or German systems of draining, subsoiling, and irrigating, that the best authors of the other side of the Atlantic have yet produced.

It is idle to lay before farmers, in a country like ours, where *capital*, is rarely or never employed in farming—where land is plentiful, but labor scarce and dear—systems of farming, based on just the contrary state of things—where farming is carried on with abundant capital, and where the price of labor and the means of tillage are such that it will pay a good interest upon the capital employed. It is very much like discoursing to the keeper of a "country store," upon the large principles of commerce which govern the transactions of such houses as the Barings, or Brown, Brothers, and Co.

We think, therefore, that Mr. ALLEN's volume, the basis of which is good practical farming, as practised by the best cultivators in the United States—with an intelligent reference to those principles of science which lie at the root of all successful practice, is likely to be of as much or more real service to us, than any work on agriculture yet issued from the press, and we gladly commend it to the perusal of every one of our readers engaged in the cultivation of land.

Its character, indeed, is essentially that of a manual, or handbook. "It is intended," says the preface, "as one of the first in the series of lessons for the American farmer. Its size precludes its embracing any thing beyond the shortest summary of the principles and practice by which he should be guided in the honorable career he has selected. As a primary work, it is not desirable that it should comprise so much as to alarm the tyro in agriculture with the magnitude of his subject. A concise and popular exposition of the principal topics to which his attention will necessarily be directed, will, it is believed, in connection with his own observation and practice, give him a taste for further research, which will lead him to the fullest attainment in agricultural knowledge, that could be expected from his capacity and opportunities."

This is a very modest introduction to a work, which, if only "a brief compend," contains less speculation, and more pith and sense, than one in a hun-

dred of the volumes now being offered on the cultivation of the soil.

The work is by no means local in its character, as it is quite copious and instructive on the subject of southern agriculture, and we cannot doubt will be very acceptable south of the Potomac.

We would gladly give space for some extracts from the body of the volume, but our limits will not permit. We cannot, however, but quote from the introduction, Mr. ALLEN's excellent remarks on the propriety of the exercise, by the state Legislature, of a fostering care of the interests of Agriculture. The people, Mr. ALLEN urges with force, should oblige the state legislatures to effect something more tangible for the education and advancement of farmers as a class—we may add, the great respectable class of America.

"Education, in all its branches, is under their exclusive control; and to endow and foster every institution which has a tendency to raise and improve the intellectual, the moral, and the social condition of the people, has ever been their cherished policy. Yet up to this time, no institution expressly designed for the professional education of farmers, has ever been established in this country. That far-seeing wisdom which characterizes the consummate statesman, which regards the future equally with the present and past, has halted upon the threshold of the great temple of agricultural science, whose ample and enduring foundations have been commenced by the united efforts of the men of genius throughout both hemispheres. To aid with every means in their power, in laying these foundations broad and deep, to elevate its superstructure, to rear its mighty columns, and adorn its graceful capitals, would seem most properly to come within the province of the representatives of intelligent freemen, the great business of whose lives is the practice of agriculture.

"In addition to continuing and making more general and comprehensive the encouragement for other objects heretofore considered, it is the duty of each of the larger states of the Union, liberally to endow and organize an Agricultural College, and insure its successful operation within its jurisdiction. Connected with them, should be example and experimental farms, where the suggestions of science should be tested, and carried out before submitting them to the public. The most competent men at home and abroad should be invited to fill its professional chairs, and if money would tempt a Liebeg, Boussingault, a Johnston, or a Playfair, to leave the investigations of European soils and products, and devote all their mind and energies to the development of American husbandry, it should be freely given.

"These institutions should be schools for the teachers equally with the taught, and their liberally appointed laboratories and collections should contain every available means for the discovery of what is yet hidden, as well as for the further development of what is already partially known. Minor institutions should of course be established at different and remote points, to scatter the elements of agricultural knowledge broadcast throughout the land and bring them within the reach of the poorest citizens and the humblest capacities.

"By such a liberal and enlightened course, we should not only incalculably augment the productive agricultural energies of our own country, but we should also in part repay to the world at large the obligations under which we now rest for having appropriated numerous and important discoveries and improvements from abroad. If we have the ability,

which none can doubt, we should make it a point of honor to return in kind the liberal advances we have thus received.

"It is to the rising generation these suggestions are made; the risen are not yet prepared for their acceptance. The latter have been educated and become habituated to different and more partial influences. By their industry, intelligence, and energy, displayed in numberless ways, and especially by their protection of American labor, they have accomplished much for their own and their country's welfare—they are resolved to leave this glory for their successors."

The above work is on sale at the bookstore of the publisher of the "*American Farmer*," price \$1.

PROCEEDINGS OF THE PRINCE GEORGE'S AGRICULTURAL FAIR.

The Committees appointed to examine Farms, Stock, Implements, &c., made the following reports, which were read and adopted by the Society, and the premiums awarded as recommended therein:

BEST REGULATED FARMS.

The undersigned, the Committee on best Regulated Farms, appointed in conformity with the rules of the Prince George's Agricultural Society, beg leave to report; that they entered upon the discharge of the duty assigned them, as soon as they were notified by the competitors for the premiums, that their farms and plantations were in order for their investigation.

Walter W. Bowie, Richard S. Hill, Charles B. Calvert, and Robert Bowie, Esqrs., are the gentlemen who presented themselves as competitors, and invited the attention of the committee.

The farm of Charles B. Calvert, Esq his system, his investments, and the highly gratifying results of the whole combined, challenged the closest attention of the committee, and merits the most profound consideration not only of this society, but of every Agriculturist in the lower counties of Maryland. Mr. Calvert has entirely given up the cultivation of tobacco, and directed his attention exclusively to the conversion of his farm into a grass growing and dairy farm. In this he has completely succeeded—and this success is the more wonderful when it is borne in mind, that the soil on which this change has been affected is a cold, barren, cadaverous clay, in its natural and broken state producing nothing, defying all well directed efforts of the hoe and plow, and incapable of producing any thing. On this land, Gypsum, so powerful and magical in its operation elsewhere, has no effect whatever; nor has any perceptible improvement from heavy applications of lime made years ago been at any time seen. So that your committee are of opinion, that no land in any portion of Maryland can be found, whose soil is poorer and less inviting to the noble efforts of the Agriculturist. But this dead soil has been brought to life, and made to teem with the most useful and wealth producing vegetation by the application of barn yard and stable manure combined; and to the credit of Mr. Calvert let it be recorded, that this great mass of manure, producing such extensive and decisive results, is the exclusive production of his own farm.

As one item of evidence on which the opinion of the committee is founded, we deem it not improper to let Mr. Calvert speak in his own words. In his prepared statement in answer to the fifteenth interrogatory, he says, "In answering this interrogatory, I beg leave to state, that I cannot ascertain precisely the amount of butter made on my farm, as I have no

means of arriving at the amount consumed in my own family, but supposing that the object of the enquiry is to ascertain the amount derived from the dairy, I have to state that I have turned my attention particularly during the last year, to making my farm dairy and grazing one; and considering all the disadvantages which one has to contend against in every new pursuit, I think I have been quite as successful as I could expect for the first year. My dairy has yielded me from the first of January, 1846, to 1st October, 1846, in Milk, Cream, and Butter \$2,391 96 cents; and this leaves out about the best quarter of the year—so that the revenue of the whole year may be fairly stated at \$3,000 or more."

In addition to this, there are from 150 to 200 acres in grasses, yielding from one to two tons per acre, and producing a revenue after the cows and horses are abundantly supplied—nearly if not quite equal to that of the dairy.

The committee have taken but little into consideration the wheat, corn, and oats; as the former was injured in common with all the wheat in this region,—and the latter by frequent and heavy freshets, which were so disastrous to all flat lands having bold streams running through them.

The root crops which are extensive, it is presumed are planted with a single eye for the benefit of the cows. From this very hasty view, there is one reflection that naturally arises, and it is a cheering and consolatory one to every man who is even possessed of the very poorest species of poor land, and that is, never to despair of his land—reflection that is akin to the high-toned patriot's resolve—never to despair of his country—the danger may be on the wing, and the clouds may darken and lower around it.

If Mr. Calvert has not found out the Philosopher's stone, he certainly has the road to wealth, and an honorable fame, by the judicious application of barn yard manure to the most sterile soil. An example well worthy the emulation of every man.

The plantation of Col. W. W. W. Bowie, from its rapid and high state of improvement under its public spirited proprietor, merits the highest encomiums of the committee. It has already in sharp competitions received the second and third honors. It presents to those that have known it long, some most pleasing considerations; bespeaking management, system and untiring industry. Galled knolls have been re-invigorated, gullies have been leveled, stumps and roots grubbed up, briars eradicated, wet swamps ditched and reclaimed, embankments to hold the Patuxent in check, erected at heavy expense and with indomitable perseverance, new meadows made and well set in timothy, ornamental trees, and fruit trees of the best varieties, planted out, woods have been felled, and the land cleared and cultivated. Great attention has been paid to manures, and the effects of this great right hand prop of the farmer is clearly discernable, on every part of this well arranged, highly cultivated and beautiful plantation. Col. Bowie has overcome many and serious difficulties, showing to the committee, and those around him, that he is possessed of the spirit of enterprise, with a head to plan, and a hand to execute.

The plantation of Mr. Richard S. Hill, evinces much labor and industry—altho' there is not that beauty and neatness of management, which is so pleasing to the eye. This great omission may in charity, be attributed to the fact, that the worthy proprietor is a bachelor—and lacks that stimulus and taste for the beautiful and ornamental, which in some cases, can be only supplied, by the kind and witching

influence of a neat and tidy wife; an article in the way of domestic comfort and happiness, your committee with perfect unanimity recommend Mr. Hill to possess himself of right speedily. For his soil is first rate, and its yield abundant.

The plantation of the worthy President of this Society, is another evidence of the spirit of improvement, which is abroad in the land. He has given to the committee ample evidence, that his efforts are most judiciously applied to the enriching of a soil, which, in its natural and uncultivated state, offered but few temptations to the spirit of enterprise. His system appears well arranged, his houses and farming utensils in good order, his stock well provided for; and every thing around him appears cheerful, contented and happy.

Your committee regret exceedingly, that the limited time allotted to this report, prevents them from going into an extended review of many facts and circumstances, well calculated to excite great interest in the minds of every Agriculturist. But they trust that they have presented sufficient considerations to demonstrate, that great good grows out of a worthy and laudable spirit of competition. There are but few honors, that confer more real satisfaction, than the honors of an Agricultural society, impartially bestowed; as the evidence of skill and industry, of management and labor. In the quiet of his family, and surrounded by his friends—the successful competitor points with laudable and heartfelt pride to his premiums, as so many monuments, which to him cannot be valued in money. In this, he has a higher and holier pleasure than the successful chieftain, whose renown is written in the blood of thousands slain.

Your committee now proceed to the most delicate part of their duty, and that is, to award the three premiums. It is due to say, that, in many instances, they considered the merits of Col. Bowie, and Mr. Calvert equal, and their only regret is, that they cannot award to each; but upon a review of every fact and circumstance brought to their consideration—and mainly based upon the written answers of each of those gentlemen, to the interrogatories propounded—they have after due examination and consideration, unanimously agreed, to award the first premium to Mr. Charles B. Calvert, for his farm of fourteen hundred acres. As the committee consider it their duty to award the other premiums under the rules and regulations presented to them for their government, a majority have accordingly awarded the second to Mr. Richard S. Hill; and the third to Mr. Robert Bowie. Under the rules it will be borne in mind, that Col. Bowie, having heretofore obtained the second and third, could only compete for the first.

The first named of your committee, would here take the liberty to suggest, that the spirit of competition, could be rendered sharper and keener, by extending the bounds of competition. As at present constituted, the competitors must be confined to the Utica of Prince George's County. There is a little river well known as the Patuxent, let that be crossed in the spirit of generous rivalry—and many a gallant spirit with polished plow and pruning hook, will be found on its eastern banks, ready and anxious to enter the lists.

Your committee cannot conclude their report, without expressing the great pleasure they have derived from their excursion. Social feeling and generous hospitality prevailed at every place that they sojourned. They have derived much pleasure from

the general evidences of improvement that were manifested on all sides. There were only one or two spots that presented themselves in their ride, to mar the general harmony of the scene, and to proclaim that the abode of the sluggard was nigh.

All of which is most respectfully presented:

JOHN S. SELLMAN,
W.M. C. OGLE,
JAMES MULLIKIN.

ON HORSES AND MULES.

The undersigned, a committee upon horses generally, have the honor to report, that the exhibition of common horses was not as numerous as upon some former occasions, but the quality was probably better than usual, but the committee take much pleasure in expressing their great admiration at the splendid lot of mules exhibited by their public-spirited owner, Col. CAPRON, and award the following premiums:

For the best pair of matched horses, premium to Col. Capron.

For the best single harness horse, premium to Col. Capron.

For the best saddle horse, premium to Col. Capron.

For the second best saddle horse, certificate to Wm. H. Tuck, Esq.

For the best brood mare, for general purposes, premium to Richard S. Hill, Esq.

For the second best, for general purposes, certificate to Samuel H. Dorsett, Esq.

No horse colt between one and two years of age offered.

For the best horse colt, between two and three years, premium to Col. Capron.

For the best pair of mules, premium to Col. Capron, for Prince and Fanny.

For the best mule colt, premium to Richard S. Hill, Esq.

For gray horse colt, between two and three years of age, certificate to Samuel H. Dorsett, Esq.

SAMUEL H. DORSETT,
JAMES SOMERVILLE, JR.
CORNELIUS SMITH.

ON DURHAM AND DEVON CATTLE.

The committee on Durham and Devon cattle have the honor to report, that they award the premiums, as follows:

Best Durham bull, between two and three years old, premium to Charles B. Calvert for "Montrose."

Next best, certificate to Robert Bowie for "Marlboro."

Best Durham cow, over three years old, premium to Charles B. Calvert for "Daphne."

Next best, certificate to Horace Capron for "Ellen Kirby."

Best Durham bull, between one and two years old, none offered deemed worthy of a premium.

Best Durham bull calf, between four months and one year old, premium to Charles B. Calvert for "Richmond."

Best Durham heifer, between two and three years, premium to Charles B. Calvert for "Fanny."

Best Durham heifer, between one and two years, premium to Horace Capron for "Kitty Clover."

Best Durham heifer, between four months and one year, premium to C. B. Calvert for "Minna."

Best Devon heifer, between two and three years, premium to William D. Clagett for "Margaret."

Best Devonshire bull, over three years, premium to William N. Dorsett for "Duke."

Best Devonshire bull, between one and two years,

premium to Clement Hill for "Beelzebub."

Best Devon cow, over three years, premium to Thomas Duckett for "Amelia."

It would seem that an oversight has been committed in arranging the premium lists, in not offering premiums to Devon calves between four months and one year old, as has been done in the case of Durham cattle. Had such premiums been offered, the committee would have given a premium of \$2⁵⁰ to Mr. Duckett's calf, "Tom Thumb," and \$1⁵⁰ to the said gentleman for his heifer calf, "Cherry."

The committee were pleased to see the number of Durham cattle increased by the beautiful herd of Col. Horace Capron; and they further were gratified on seeing the introduction of an *Alderny* in the stalls of Mr. C. B. Calvert. All which is respectfully submitted.

W. W. W. BOWIE,
GEORGE A. DIGGES,
BARUCH MULLIKIN.

*The Society awarded these premiums to Mr. Duckett.

ON COMMON CATTLE.

The committee on common cattle beg leave most respectfully to submit the following report:

Premium to Robert C. Brooke for the best beef cattle.

Premium to Horace Capron for the best pair of work oxen.

Premium to William B. Hill for the best cow.

Premium to Thomas Duckett for the best heifer between two and three years old.

Premium to Clement Hill for the best heifer between one and two years old.

Premium to Thomas Duckett for the best calf between four and twelve months old.

SAMUEL PEACH,
JOHN MITCHELL,
WILLIAM D. CLAGETT.

ON SHEEP.

The committee on sheep respectfully report, that they have awarded premiums to the following gentlemen, viz:

Premium to W. W. W. Bowie, Esq., for the best Leicester buck.

Premium to Col. Horace Capron for the best Southdown buck.

Premium to Dr. Richard W. Bowie for the best buck of any other breed.

Premium to Thomas Duckett, Esq., for the best Leicester ewe.

Premium to Col. Horace Capron for the best Southdown ewe.

Premium to Wm. D. Clagett, Esq., for the best ewe of any other breed.

Premium to W. W. W. Bowie, Esq., for the best pair of lambs.

Premium to Thomas Duckett, Esq., for the best lot of live mutton.

Premium to the same gentleman for the best lot of slaughtered mutton.

The committee, with pleasure, bear testimony to the excellence of the specimen of slaughtered mutton exhibited by W. W. W. Bowie, Esq., which was very fine, but not so large as that of Thomas Duckett, Esq., to which they award the premium.

ZADOK SASSCER,
BARUCH MULLIKIN,
HORATIO C. SCOTT.

ON HOGS.

The committee on hogs beg leave to report, that for the best stock hog, of any breed, over one year old, they award the premium to Col. Horace Capron for his remarkably fine Berkshire, "Vicar of Wakefield."

For the best stock hog of any breed, under one year old, they award the premium to Col. W. W. W. Bowie for his beautiful Chester county hog, "Tom Tumb."

For the best sow, of any breed, over one year, they award the premium to Clement Hill, Esq., and to the same gentleman the premium for the best litter of pigs.

Dr. Bayne exhibited three very superior young Chester county sows, to the best of which they award the premium for the best sow under one year old. The exhibition of hogs was not large, but fine. All of which is respectfully submitted.

THOMAS DUCKETT,
WILLIAM N. DORSETT,
ALLEN P. BOWIE.

ON TOBACCO.

The committee on tobacco respectfully report, that they award to James Kent the premium of \$12 for the best hoghead of tobacco; the premium of \$10 for the second best hoghead of tobacco to James Ovens; and the premium of \$8 for the third best hoghead of tobacco to Robert C. Brooke. They regret that several samples of hogheads of tobacco, which the committee think better than those for which they gave the Society's premiums, were excluded for want of proper authentication.

JOHN BROOKES,
GEORGE MORTON,
RICHARD C. BOWIE.

ON HOUSEHOLD MANUFACTURES.

The committee on Household Manufactures beg leave to report, that after a careful examination of the various and highly meritorious articles of domestic manufactures, brought to their notice, they have awarded the premiums as follows:

For the best specimen of home spun cloth, Mrs. Early.

For the best home made quilt, Miss Cornelia Early.

For the best home made counterpane, Mrs. Thomas Martin.

For the best lot of home made cotton stockings, Mrs. Ben. Berry.

For the best specimen of domestic wine, Mrs. Robert Bowie.

For the best specimen of domestic bounce, Mrs. Robert Bowie.

For the best specimen of domestic cordial, Mrs. George W. Wilson.

For the best specimen of butter, Mrs. Charles B. Calvert.

For the best specimen of embroidery, Miss Cornelia Early.

For the best display of manufactured goods, Thomas Frwett.

For the best lot of servants shoes, Messrs. Coyle & Son.

For the best home made wheat bread, Mrs. W. W. W. Bowie.

For the best home made pound cake, Mrs. H. C. Scott.

For the best home made sponge cake, Mrs. William H. Tuck.

For the best specimen of home made carpeting or rugs, Mrs. Richard C. Bowie.

The committee, in conclusion, beg leave to award a certificate, as no premiums were offered for the article, to Mr. Daniel Campbell of Washington city, for the very beautiful saddle, bridle and horse covers exhibited by him; and also a certificate to Messrs. Ramsburg & Ebert for the fine display of buckskin and sheepskin articles from their factory in George Town, D. C. Mr. William Harper brought some very fine cloth, &c., but was too late for the report, and the committee therefore recommend and award a certificate.

ROBERT W. BOWIE,
A. S. CLEMENT,
CHARLES B. CALVERT.

ON FRUIT.

The committee on fruit award the premiums to Dr. Bayne for his excellent collection, consisting of apples, pears and peaches, particularly his choice assortment of fall and winter pears.

CHARLES H. CARTER,
WILLIAM B. HILL,
JOHN H. SOMERVELL.

ON AGRICULTURAL PRODUCTIONS.

The committee on agricultural productions have to report that there were two lots of vegetables for table use offered, which were fine, and they award the premium to Thomas Duckett, Esq.

Those of Dr. Bayne, however, the committee felt bound to notice, being also very superior.

The best acre of oats, premium to Col. Capron.

Best acre of corn, yielding eleven and five-eighth barrels per acre, premium to Samuel H. Dorsett, Esq.

For the best acre of wheat, premium to Thomas Fawcett, Esq.

There was also another lot of wheat offered by Thomas Duckett, Esq., which the committee felt bound to notice, but on account of its not being accompanied by the proper certificates, of course could not be offered in competition.

For the best eighth of an acre of potatoes, premium to Thomas Fawcett, Esq.

CHARLES C. HILL,
GEORGE W. YOUNG,
THOMAS W. CLAGETT.

CERTIFICATES

ACCOMPANYING THE REPORT OF THE ABOVE COMMITTEE.

Lot of ground containing sixteen and a half acres, soil clay loam—barren old field in the spring of 1846; 50 bushels lime spread on the surface last fall, ploughed under, one hundred bushels ashes per acre spread on surface this spring, crossed ploughed, oats and clover harrowed in, rolled; bare spots to the amount of about two acres, top dressed with guano; product, five hundred and eight bushels, average thirty and eight-tenths of a bushel per acre.

October 27, 1846. HORACE CAPRON.

We, the subscribers, do hereby certify that we assisted in threshing and measuring up the oats grown on the above piece of ground, and found them to be five hundred and eight bushels.

ANDREW EMBLER,
JOSEPH B. PEARCE,
N. MCKNEW.

We, the undersigned, hereby certify that on the 23rd inst., we measured an acre in the corn field of Mr. Samuel H. Dorsett, as well as the corn grown on the same, and that the acre yielded eleven and five-eighth barrels of corn, without any pumpkins.

THOMAS S. IGLEHART,
JOHN IGLEHART,
SPRING HARWOOD.

The undersigned respectfully states, that the mode of cultivation of the above acre of corn, was as follows, to wit: the land was fallowed about six inches deep, the last of April, then harrowed, checked and planted four and a half feet each way; more than the usual quantity of seed was put into each hill to protect the crop against the cut worm, which I have found always destructive after spring fallow; the seed corn was steeped in brine twelve hours, and rolled in plaster. After the field was planted, it was harrowed immediately with a drag harrow, it was thinned when safe from the cut worm, two stalks left in each hill and noed, cultivated five times with the cultivator, which completed the cultivation. Plastered with a bushel of plaster, broad cast, when about waist high.

SAMUEL H. DORSETT.

We the undersigned, do hereby certify, that we assisted in measuring a piece of ground on the farm of Thomas Fawcett, one hundred and twenty yards long and forty-one wide, which having been sown in wheat, produced twenty-eight bushels and three pecks, which we assisted in measuring, weighing sixty and one-fourth pounds per bushel.

JAMES A. LEE,

ELIAS MOORE,

JOHN MERSON.

The above acre of land in 1844 was in broom sedge, and would not have produced one barrel of corn if planted in its then state. It was ploughed up very deep in the fall of 1844, and had one hundred bushels of lime per acre put on it in the spring of '45. It was heavily manured and planted in potatoes; the produce of the potatoe crop was one hundred and seventy-five bushels per acre, which sold in Washington for one dollar per bushel.

The wheat was sown on the 2d of October, 1845, one and a half bushels per acre, (Mediterranean wheat,) and ploughed in with a small one-horse plough. It was cut on the 17th or 18th of June, perfectly ripe. It was very much injured by being laid down by the heavy rains, and had a great deal of scab in it, but had not the least appearance of rust. My own impression, and that of others, on the first of June, before the scab made its appearance, was, that the produce would be from forty to fifty bushels per acre.

THOMAS FAWCETT.

October 26, 1846.
We, the undersigned, do hereby certify that we assisted in digging twenty bushels and one peck of potatoes from a piece of ground on the farm of Thomas Fawcett, twenty yards broad and thirty-six long, of which there was to the full extent one-third missing—so much so that the vacant places were sown in turnips.

JAMES A. LEE,

JOHN MERSON,

JOSEPH FAWCETT.

The potatoes were planted in an orchard; the land very poor; one hundred bushels of lime per acre was put on the land and heavily manured with cow yard manure, ploughed in with a three horse plough. The potatoes were planted three feet apart in drills, and twelve inches in the drill, covered with the plough. The seed were very small potatoes, and would not have been planted could others have been procured at the time. They were planted on the twenty-second of June, and were twice ploughed and once weeded with the hoe. It is by far the smallest produce I have had for years back, for the same quantity of land, and the only inducement I have for sending down a sample, and putting in for a premium, is a desire to contribute my mite to the encouragement of the Society.

THOMAS FAWCETT.

October 26, 1846.

ON AGRICULTURAL IMPLEMENTS.

The committee on agricultural implements respectfully report, that they have examined with much care the splendid display of labor-saving machinery that is exhibited by the different competitors for the Society's approbation, and have concluded to award to Mr. Fitzhugh Coyle for the best plough the premium of five dollars; for the second best a certificate; to Messrs. Robert Sinclair Jr. & Co. for the best lot of implements for the cultivation of corn and tobacco, the premium of five dollars; for the best fanning mill or wheat fan, certificate to Mr. Fitzhugh Coyle; for the best horse power and threshing machine to Mr. Charles H. Drury of Baltimore, the premium of five dollars; for the best drill machine, certificate to Messrs. Robert Sinclair, Jr. & Co.; a certificate to Mr. Drury of Baltimore, for his mill as a new and valuable machine; and to James F. Martin for a handsome display of edge tools, a certificate. Respectfully submitted.

JOHN BROOKES,
AARON CLEMENT,
ZADOK SASSCR.

After the transaction of other business, The Society proceeded to elect its officers for the ensuing year—when the following gentlemen were unanimously chosen:

President—HORATIO C. SCOTT.

Vice Presidents—JAMES SOMERVELL, JAMES MULLIKIN, WILLIAM H. TUCK, THOMAS W. CLAGETT, ROBERT W. BOWIE, WILLIAM D. BOWIE.

Corresponding Secretary—THOMAS F. BOWIE.

Recording Secretary—DANIEL C. DIGGES.

Treasurer—GEORGE W. WILSON.

Executive Committee—BARUCH MULLIKIN, ROBERT BOWIE, WILLIAM N. DORSETT, THOMAS DUCKETT, DR. RICHARD W. BOWIE.

The Society then adjourned.

ROBERT BOWIE, *President*.

DANIEL C. DIGGES, *Secretary*.

From the American Quarterly Journal of Agriculture and Science.

THE HESSIAN FLY.

BY ASA FITCH, M. D.

[Concluded from our last No.]

The Hessian fly "reached Saratoga, two hundred miles (north) from their original station, 1789," says Dr. Harris, though on what authority is not stated. Of its correctness, however, there is no doubt. From the statements of several persons who were residing in Washington and Saratoga counties so long ago as this date, it appears that the crops in this district of the country, (at that day second to no other in the quantity of wheat which it produced,) first began to fail about the year 1790 or 1791. The insect reached here by a regular progress from the south, coming nearer and nearer each successive year. It continued to infest the crops during a number of the following years, sometimes severely, at others but moderately. On two or three occasions, many of the fields in Saratoga county were entirely destroyed. I do not learn that in this vicinity their devastations at any time reached this extent. About the year 1803, their last depredations were committed. From that time this insect have never been observed in this vicinity, that I can ascertain, until the autumn of last year.

In 1792, the recently instituted New York Society for the Promotion of Agriculture, Arts, and Man-

ufactures, issued part first of their *Transactions*, containing (p. 71—86), "Observations on the Hessian Fly, by Jonathan N. Havens." This is the most valuable memoir that had hitherto appeared upon this subject, and few of those of a later date surpass it. After sketching the ravages of the fly in different years in his own vicinity, Judge H. describes with much precision its situation and appearance in the respective stages of its existence, showing that it passes regularly through but two generations in a year, instead of three or four, as anterior writers had stated. As remedies, he recommends sowing none but the bearded wheats, and burning or plowing up the stubble soon after harvest. This last important measure had never before been proposed; Judge H. had been led directly to it, by his close investigations of the habits of this insect.

The American Philosophical Society, this year appointed from among its most competent members, a committee (Thomas Jefferson, B. Smith Barton, James Hutchinson, and Casper Wistar), "for the purpose of collecting and communicating to the society materials for forming the natural history of the Hessian fly." This committee immediately issued a circular, requesting all persons acquainted with any facts relating to this insect, its depredations, and preventives, to communicate the same by letter to their chairman. The numerous points upon which information was desired, were particularly detailed in an extended series of questions, which clearly indicate the importance which they attached to this subject, and the thorough investigation which they proposed making. It cannot but be regretted that this business, committed to such capable hands, was not pursued and brought to a close with the same zeal with which it was evidently commenced. We have met with no report ever rendered by them. (*Carey's Museum*, vol. xi., p. 285.)

At this time, as we infer from a clause in the circular just alluded to, and also from some passages in Dr. Mitchell's address before the New York Society of Agriculture; (*Transactions*, vol. 1., p. 32,) the insect was becoming so rare in all the more densely settled parts of the middle states, which had been first overspread by it, that it was the common opinion that it would soon vanish from the country entirely. Notices of it in the magazines and newspapers become more rare, and it was evidently ceasing to be regarded with that intense solicitude which it had hitherto excited. It was, however, with unabated vigor, continuing its progress southward. A letter from Prospect Hill, Delaware, dated June 12th, 1792, (*Carey's Museum*, vol. xi., p. 301,) states that the fly arrived there "in prodigious clouds," about the middle of the preceding September. It describes the place where the eggs were deposited on the young wheat, the growth of the worm, and the perishing of all the plants, except those growing upon a rich soil, and adds further testimony in favor of the Underhill wheat.

In 1797, Dr. Isaac Chapman, of Bucks county, Pa., prepared one of the best accounts of this species that has ever appeared, containing the details of his own careful observations upon the insect and the time of its appearance in its different stages. These observations lead him to recommend as the most certain safeguards against the fall attack, late sowing, and against the spring attack, a quick vigorous growth, to be obtained by procuring southern seed and sowing it on a rich, elevated and dry soil. His paper is published in the fifth volume of the *Memoirs of the Philadelphia Society for Promoting Agriculture*, a vol-

ume which we regret having been unable to find in either of the largest libraries of this state. We are therefore obliged to depend for its contents upon second hand accounts. Dr. C. states that the fly was this year found upon the west side of the Alleghany mountains.

The eighth volume of the *Encyclopedia Britannica*, published this year, gives (pages 489—495) an extended article under the head *Hessian Fly*, consisting chiefly of a summary of the several documents laid before the privy council during their investigations.

In Dr. B. S. Barton's *Fragments of the Natural History of Pennsylvania*, issued in 1799, the author announces (p. 23) his intention of publishing "a memoir upon that destructive insect called the Hessian fly." It is probable that whatever communications were addressed to the committee of the Philosophical society, had been consigned to his hands. We are not aware that the promised memoir ever appeared.

About the year 1801, the Hessian flies first made their appearance in the neighborhood of the city of Richmond. We saw but little mischief that year. But in 1802 they were much more destructive—1803, they swept whole fields—about the same in 1804. (H. McClelland, *American Farmer*, vol. ii. p. 234.)

In the year 1803, we arrive at the first notice of a scientific nature. Dr. Mitchell, in a short article in the *Medical Repository* (vol. vii., p. 97, 98), entitled "Further ravages of the wheat insect, or *Tipula tritici* of America, and of another species in Europe," states that it is now understood that our insect is a *Tipula*. He alludes to the extent of this genus, (ninety-four species being enumerated by Weber,) and though he has often examined our insect, and bred it so as to observe its transformations, he declines giving a decided opinion whether or not our species is different from all those that had been described. He refers to the species "treated as a nondescript" by the Rev. Mr. Kirby, in the *Linnean Transactions*, copies its name and technical characters, and closes with the remark, that whether Mr. Kirby's insect is a new one or not, it is not the same animal which has been so injurious in this country. Had the doctor but added a few words descriptive of our species, he would undoubtedly be entitled to "the barren honors of a synonym." Respecting the depredations of the insect at this time, we learn from him, that "during the cold and dry spring of 1803, these creatures again infested the wheat more than they had done for many years. Many crops were cut off early in June, and the ground plowed up for other purposes."

During a long interval we meet with no further notices of this species. Its depredations would appear to have been so slight, and public attention so much engrossed with other affairs, that nothing, as we have discovered, is recorded of it.

At length, in 1817, it is stated to have renewed its ravages in various sections of the country. In the neighborhood of New York and of Philadelphia, it is evident that it was unusually abundant, and in parts of Maryland and Virginia, it was perhaps more destructive than it had ever been before.

It was on the 24th of June in this year, that Mr. Say read before the Philadelphia Academy of Natural Sciences a paper entitled "Some account of the insect known by the name of Hessian fly, and of a parasitic insect, on which he bestows the name *Cecidomyia destructor*, and also of its most common parasite, referred by him to the genus *Ceropron*, and also named *destructor*. The paper was published in the *Journal of the Academy* (vol. i., p. 45—48), issued in

the course of the ensuing month, and was followed in August by a copperplate illustration of these insects, drawn and engraved by Mr. C. A. Le Sueur. "A local habitation and a name" were thus conferred upon this world-renowned species, by which it has ever since been definitely specified and arranged in works of science.

In the *American Monthly Magazine and Critical Review* for August, 1817, (New York, vol. i., p. 275—279,) appeared a paper bearing the title, "An account of the wheat insect of America, or the *Tipula ruginalis tritici*, commonly called the Hessian fly." This paper gives the substance of Judge Haven's memoir, and professes to copy a technical name and description which had been published by Dr. Mitchell in the *New York Gazette* of July 3d. But whoever refers to the *New York Gazette*, will find no attempt at a technical description, nor no name except that of *Tipula tritici*, which is in one instance, casually as it were, made use of. The *ruginalis* is therefore an interpolation of the writer in the *Magazine*; and as he, at least on some subsequent occasions, refrained from bringing this name further into notice, when a fair opportunity was presented him for doing so (as editor of *Hooper's Medical Dictionary*, &c.) we doubt not when the excitement of the day was past, he deeply regretted that he had ever drawn up an article so derogatory to himself as that which appears in the *Magazine*. We should therefore suppress all allusion to this subject, with the hope that it might pass wholly into oblivion, but that the article from the *Magazine* has of late years been copied into some of our agricultural journals, and has been referred to in terms of commendation by some names of respectability. With the currency thus unfortunately given to it, it will be read by hundreds who can never see the *New York Gazette*, and who will thus deem that one of our most distinguished savans had degraded himself by a paltry attempt to forestall Mr. Say in giving to this species a technical name.

Gen. John H. Cocke this year communicated his observations to the Albemarle Agricultural Society of Virginia. Having well ascertained that the fly deposits its eggs upon the blades of the wheat, at from a half to three inches from the central stalk, and that these remain there four or five days before they hatch, he recommends feeding off the crop, by pasturing sheep upon it; thus destroying the eggs, and depriving the fly of its wonted place for depositing them. "A King William Farmer" dissents from this advice, and thinks covering the seed to the depth of three inches the best safeguard against the fly. "A Frederick County Farmer" and Dr. Merriweather oppose this, and a controversy ensues, reaching through several communications in the *Richmond Enquirer* and *National Intelligencer*, and afterwards continued in the *American Farmer*, till in 1820 it was brought to a close by a valuable article from that distinguished agriculturist, the late James M. Garnett, (*American Farmer*, vol. ii., p. 174,) accompanied by an illustration, clearly demonstrating the correctness of the statements first put forth by the King William Farmer. The facts thus elicited will be more fully considered in a subsequent essay.

In 1820, Edward Tilghman, of Maryland, described (*American Farmer*, ii., 235) the place and mode of deposition of the eggs, he having in numerous instances watched the fly in the very act of ovipositing. At a later day Mr. T. has favored the public with a more full and exact description of this process. (*Cultivator*, viii., p. 82.) James Worth of Pennsylvania, also in 1820 minutely described from his per-

sonal observations, the situation of the egg, its hatching, and the journey of the worm down the leaf to its usual nidus. (*American Farmer*, ii., 180.)

In the second volume of the *Memoirs of the New York Board of Agriculture*, issued in 1823, is a communication (p. 169—171) on the Hessian fly, from Judge Hitchcock, who deems a fertile soil the best safeguard. In the third volume of the same work, published in 1826, (p. 326—338), is a paper by the indefatigable secretary of the board, the late Judge Buel, giving a condensed summary of all the information respecting this insect, contained in the accounts of Judge Havans, Dr. Chapman, and the different writers in the *American Farmer*.

In 1840, Miss Margaretta H. Morris, of Germantown, Pa., in a communication to the American Philosophical Society, revives the theory of "a landholder," already noticed, that the egg of the fly is deposited in the grain, and that obtaining seed from uninfected districts will therefore be the best safeguard. The report of the committee upon this paper, is inserted in the society's *proceedings* of November, 1840, and the paper itself is published in the society's *Transactions* (vol. viii., p. 40—51). Communications bearing upon the same subject were also made to the academy of Natural Sciences, in 1841, by Dr. B. H. Coates. (*Proceedings Acad.*, vol. 1., p. 45, 54 & 57.)

In 1841, Mr. E. C. Herrick, librarian of Yale College, gives "a brief, preliminary account of the Hessian fly, and its parasites," in *Silliman's Journal of Science* (vol. xli., p. 153—158). This paper announces the interesting fact of Mr. Dana's having met with apparently the same insect on the shores of the Mediterranean, details the writer's own accurate observations of the changes from the egg to the flax seed state, and enumerates four different parasitic insects that prey upon it during these periods of its existence, by which "probably more than nine-tenths of every generation of the Hessian fly is destroyed." Another valuable paper from Mr. Herrick appears in the *reports of the Commissioner of Patents* for the year of 1844, (p. 161—167,) giving a most exact and particular history of the transformations of this insect, and a summary view of the various remedial measures that have been proposed. Both of these papers evince the close and patient investigation which the writer had made, and the utmost carefulness in announcing nothing beyond what he had clearly ascertained.

Dr. T. W. Harris' invaluable "report on the insects of Massachusetts injurious to vegetation" was also completed in 1841. An excellent summary of all the leading facts pertaining to the history of this species, is given in this work (p. 421—433,) and its generic place, upon which point Mr. Herrick, Latreille and others had intimated doubts, is correctly settled.

The numerous agricultural periodicals of our country, abound with notices of this insect, more or less extended and valuable. To specify these notices in detail, at least as respects some of these periodicals, would require a reference to almost every number issued. Wherever important facts are derived from these sources, in the course of this essay, they are accompanied by a particular acknowledgement in each instance; an additional reference in this place, is therefore deemed unnecessary.

We close this section of our subject, with a condensed view of the depredations of this insect in the different parts of our country, during a few of the past years; the materials for which, are furnished us, in those valuable documents, the yearly reports of the Commissioner of Patents.

In the year 1842, the ravages of the Hessian fly would appear to have been quite limited. Pennsylvania suffered the most severely. The wheat crop in this state is estimated to have been twenty per cent. less than it was the preceding year, and of four different causes that produced this diminution, the fly is placed first. Some parts of Maryland, and also of Ohio, were visited by it. In the latter state, it appeared to be increasing so much, that serious apprehensions were beginning to be felt respecting its future ravages.

In 1843, it was so abundant in Western Pennsylvania in June, that it was thought it would diminish the crop twenty-five per cent. Through Maryland, and the great wheat-growing valley of Virginia, it was noticed at the same time as committing great havoc in many fields, and threatening a very decided failure in the crop; at harvest, however, the yield was found to be much better than was anticipated. In Ohio it was less injurious than the preceding year. Upon some parts of Long Island it was observed, but in limited numbers.

In 1844 it seems to have been much more destructive than in either of the preceding years, and to have made its appearance prominently in some districts where it had been unobserved before. Thus, through all the northern parts of Indiana and Illinois, and the contiguous parts of Michigan and Wisconsin, it did much injury, and in many places occasioned almost a total failure of the crops. Near Goshen, Ill., a person writes, the fly is attacking the wheat here at a dreadful rate, destroying some pieces entirely: some fields have been plowed up, and corn planted therein. The *Prairie Farmer* states that the wheat crop has suffered severely in various sections by the fly. In Will county, Ill., says the *Chicago Journal*, several entire fields of both winter and spring wheat have been destroyed by the Hessian fly. In Michigan also, it is reported to have made sad havoc, particularly in light sandy soils. From different places in this state, we are told as follows: "In some cases the injury was so severe, that the farmers had to plow up their fields and sow them over again." "There is not more than one-fourth of the surplus of 1843, owing to the wet season and the ravages of the fly." "The wheat crop is almost an entire failure. The insects took it last fall, and the rust in the spring, and then again the insects a second time." It is also stated that the same enemy had made its appearance in great force at the close of the season, in the early fall sown wheat. From different parts of Ohio, the crop was reported in May and June to be suffering considerably from the ravages of the fly. In the vicinity of Massillon it had never been so destructive before, whole fields being entirely destroyed. In the neighborhood of Rochester, N. Y., also, the fields suffered some, particularly those having a sandy soil, and that were early sown. On the west end of Long Island, its ravages were also bad, many farmers not having more than half a crop. Both in the eastern and western sections of Pennsylvania, the fly lessened the produce of this year. In Bucks county it was particularly destructive. One person states, in the month of June, that where he had expected to gather 1,200 bushels or more, he could not now hope for 300. Though it is noticed on both shores of the state of Maryland, the injury done by it here appears to have been but slight.

In 1845, through those districts of Michigan, Indiana, and Illinois, where it committed such havoc the last year, it is said by different persons to have wholly disappeared. The *Prairie Farmer* however, states

that it was still present, doing more or less injury all over the state of Illinois. Ohio sustained but little injury. It is not noticed north of Maryland, in the central parts of which state it is reported that on nearly all the light lands the Hessian fly made serious ravages, and in many instances rendered the crops totally worthless. In Georgia, moreover, its ravages in the counties around Milledgeville are said to have been dreadful: whole fields were totally destroyed, and others yielded not more than a fourth of an ordinary crop.

We regret that we have not at hand the requisite information, for tracing with equal precision the ravages of this insect during the present year. From such notices as we have casually observed in the public papers, we presume that through the country generally, it has been unusually numerous. In this vicinity, some fields have produced less than a fourth of what they would have done, but for the invasion of the fly last autumn, after an absence of over forty years, and its great increase in the spring. On sandy soils in Saratoga and the north-west parts of Rensselaer counties, several fields were observed early in July with the wheat stalks so "few and far between," that no harvesting of them would be attempted; whilst many others had been, at an earlier period of the season, plowed up and occupied with spring crops. In the western section of the state, it has also been quite destructive. The loss from the fly alone, says the *Genesee Farmer*, (vol. vii., p. 251,) will, doubtless, be at least 500,000 bushels. In those districts of Illinois, Wisconsin, and Iowa, which are contiguous to the Mississippi river, it appears to have been common, and also in eastern Pennsylvania. From a minute in the proceedings of the trustees of the Maryland Agricultural Society, we learn that "so great ravages have not been committed by the Hessian fly, since 1817. On some of the best land wheat has been plowed up, and other portions are so much injured, that they will not be worth harvesting. At least one-half of the crop of Talbot county has been destroyed." And in the upper counties of Georgia, it is said, "the fly has committed such ravages upon the wheat, as scarcely leave enough seed for another year."

Its Name and Synonyms.

It is a somewhat trite but very true adage, that "names are things." Every one who has had occasion to search through files of our agricultural journals for information respecting any particular insect or other malady to which our crops or herds are subject, well knows what doubt and perplexity is often occasioned from having two or more names used by different writers for the same thing, and also from having two or more distinct things designated by the same name. To illustrate this, let us refer to the *Patent Office Report* for 1844, p. 26, where, in thirteen consecutive lines, we read as follows: "Near Oneonta county the wheat is said to be injured by the grass worm. . . . In Schoharie we find complaints of the weevil. . . . In Schenectady country the ravages of the fly were great. . . . In parts of Columbia county it suffered from the maggot. . . . In Dutchess a yellow worm in the head destroyed it." Of a truth, "what a host of enemies!" By way of climax, we only require some wiseacre who has never seen the insect or lived within a hundred miles of it, to say, "Good people, you are all wrong; wheat worms is the correct name for your insect"—and we are furnished with a tolerably complete list of the popular synonyms of the *Cecidomyia tritici*! But who, not intimately conversant with its

American history, would suspect this single species of being designated by such a profusion of terms. Who, on reading the page referred to, of the *Patent Office Report*, (and it is a correct transcript of the very words which are in popular use,) but would receive its statements as conclusive evidence that we had in eastern New York at least four or five kinds of destructive insects preying upon our wheat crops. Such mistakes are the inevitable results of a diversity of names. So important therefore do we deem this topic, that we are induced to assign to it a distinct head.

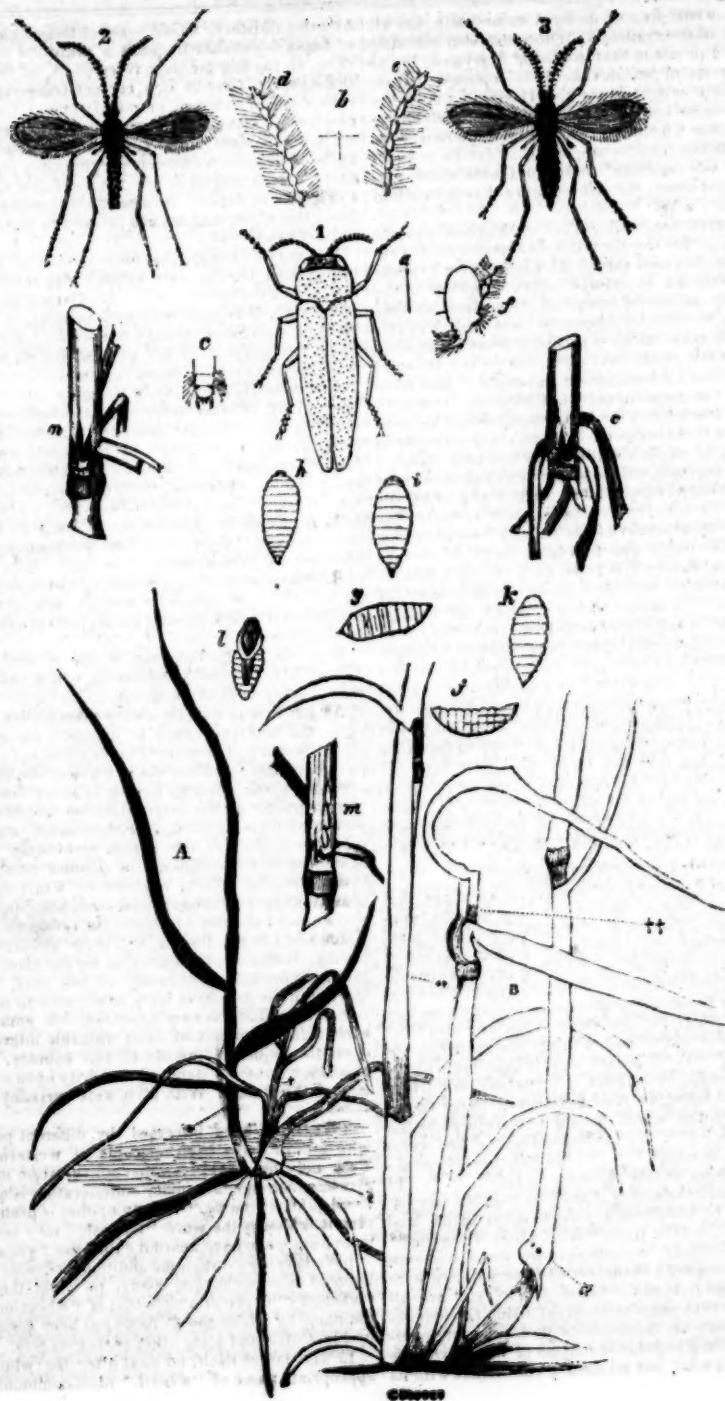
It is very fortunate that no confusion of the kind just alluded to, has ever existed with reference to the species under consideration. Its popular name, *Hessian Fly*, was first bestowed upon it by Colonel Morgan, soon after its appearance on Long Island. Some two or three of the earliest writers allude to it by the names of *Hessian bug*, and *Hessian insect*, but these designations were speedily dropped, and *Hessian fly* became universally the only name by which it was definitely distinguished, not only in this country, but in all parts of the world where the English language was spoken. Even when it was by every one deemed to be a native insect, and the epithet *Hessian* was therefore remarked by different writers as most inappropriate, still it was in such universal use, that no one had the presumption to propose a different name. Certainly, then, at the present day, when scarcely a doubt can be entertained but that it is a Hessian species, any attempt to foist upon it a new popular name, must prove signal unsuccessful.

But, Mr. M. B. Bateman, editor of the *Genesee Farmer* in 1843, and subsequently of the *Ohio Cultivator*, bestows upon this species the name of "wheat-fly."^{*} If love of novelty, or fondness for innovation prompted this gentleman to discard a name which all the world had concurred in, he could not possibly have been more unfortunate in his selection of a new one—the name *wheat-fly* having been at least fourteen years previously appropriated to a different insect, by Messrs. Loudon, Gorrie, Shirreff, and several other writers in the British periodicals; having been used by the compilers of popular treatises on insects, one of which, republished in this country, has been for several years past circulating in almost every school district of this state (*Harper's Family and School Library, Insects*, vol. ii., p. 226-228); and having, moreover, been adopted for the same insect in this country, to omit names of less note, by Dr. Harris, in his *Report*—a work so superior to any similar treatise that has ever appeared, and embodying such a large amount of most valuable information upon the injurious insects of this country, that it must long remain a standard authority upon all matters of this kind.[†] With such wide currency to the

* We have been informed, by different persons, who are or have been residents of western New York and Ohio, that in familiar conversation in those districts, the species under consideration is alluded to simply as "the fly." If any epithet is prefixed to this, it is always the word "Hessian;" they recollect in no instance to have heard it called the "wheat-fly."

† We may here state some additional reasons which induced us in our former essay, to adopt the name "wheat-fly" in preference to that of "wheat-midge," the name by which the *C. tritici* has been designated by Mr. Curtis and some other recent writers.

1. The insect itself, is, next after the wholly inappropriate name of "weevil," most commonly cal-



name wheat-fly, what must community think the extent of the reading of that man to be, who adventures to proclaim that this name belongs to the *Cecidomyia destructor*, nor to the *Cecidomyia tritici*! It could scarcely excite more surprise if he was to inform us that his orthography of the specific name *tritici* was correct, and that we were wrong in writing it *tritici*.

Mr. B.'s successor in the editorial chair of the *Genesee Farmer*, we perceive is partially inclined to "follow in the footsteps" &c. In his volume of the present year, (p. 152,) the subjoined paragraph occurs. "In the *Farmer's Dictionary*, it is recommended "to seed early," as a preventive against injury from the wheat-fly." Far be it from us to accuse our esteemed friend of misquoting his author. But if he will look again into the work alluded to, he will read under the title, "wheat midge or fly," that "early or late sowing will do little towards saving a crop;" whilst under the name "Hessian fly," occurs the unquestionably bad advice to "sow early."

The scientific name, *Cecidomyic destructor*, bestowed upon this species by Mr. Say, is the only one belonging to it, neither the name *Tipula tritici*, nor *Tipula vaginalis tritici* having any legitimate claims to be retained as synonyms. Mr. Say's name might at first view be thought liable to criticism, as being in no wise distinctive, many other species of Cecidomyians being also *destroyers*. Yet this species is so preeminent in that particular, as to throw the injuries inflicted by each of the others quite in the background. We hence think it will be conceded that the name is signally appropriate. Placed beside it, all its kindred are mere predators—this alone is THE *destroyer*.

ed "the fly," we believe, in all those districts where it is most abundant and has been longest known. It is never called "the midge." Why, then, should we speak one common name, and write another; or have in print as the common name, what we well know is not the common name.

2. No other insect in the world has a trivial name better established than the Hessian fly. Both it and the *C. tritici* will undoubtedly continue to be common insects in this country, and very frequently spoken of. If one is called the Hessian fly, and the other the wheat-midge, every person not well acquainted with this subject, will imbibe the idea that they are very different insects, their names being so dissimilar, whereas, they are most closely allied to each other.

3. It has often been remarked as a great desideratum, that the technical and common names of species in natural history, should correspond with each other; or, in other words, that the common names should in all cases where practicable, be translations of the technical names. *Cecidomyia tritici*, literally rendered in English, is gall-fly of the wheat; but inasmuch as this species does not produce galls, there is an obvious inappropriateness in retaining that word. *Wheat-fly* thus becomes the most direct translation of the technical name, that the habits of the insect admit of. No one will maintain that wheat-midge is a translation.

But, inasmuch as the name *fly* is bestowed upon such a vast host of insects, of different families, and even different orders, we by no means disapprove of the attempt of recent English writers to bring the word *midge* into current use, as a generic or family term for all the minute species of *Tipulidae*.

DESCRIPTION OF THE PLATE.

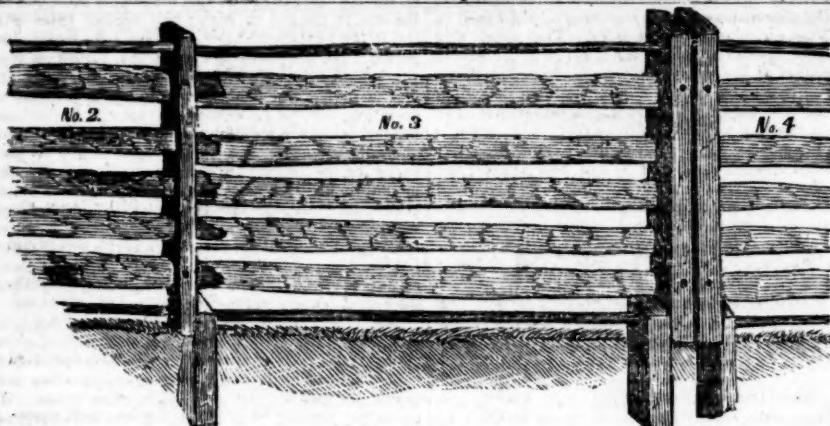
- Fig. 1 *Agrilus ruficollis*. Fab.
" a. Natural length.
Fig. 2 Hessian fly, male. (*Cecidomyia destructor*, ♂.)
" b. Its natural size.
" c. Ventral view of the terminal segments of its abdomen.
" d. Its antennæ.
Fig. 3 Hessian fly, female. (*C. destructor*, ♀.)
" e. Its antennæ.
" f. Profile view of the head, palpi, and origin of the antennæ.
" g. Dorsal view of the worm or active larva.
" h. " do " do "flax seed," or larva case.
" i. Ventral view of the same.
" j. Lateral view of the same.
" k. Dorsal view of the lormant larva, dissected from the larva case.
" l. Ventral view of the pupa.
" m. Wheat stalk; sheath broken away, showing the young worms on their way to the joint.
" n and o. Wheat stalks; sheath broken away, showing the "flax seeds" in their ordinary situation.
- A. Appearance of a healthy (*) and a diseased (†) shoot of wheat in autumn, the worms lying at §.
B. Appearances of a healthy (**) and two diseased stalks of wheat at harvest time. (††)
Stalk broken, from being weakened by the worms. §§ Base of sheath swollen from worms having laid under it, and perforated by parasites coming from those worms.

All the illustrations are magnified, except m and those following it.

PROLIFIC YIELD OF CORN.—Mr. Joseph K. Roberts, of Prince George's county, in a communication to the editor of the *Gazette*, states that he made this year on an acre of land, *fourteen and one-tenth barrels of corn*, although it had suffered severely from drought in the month of August last. From twenty-acres of the lot, from which this acre was taken, there was an average yield of *twelve barrels*. Mr. R. says:

As I have stated the quantity made, I feel it due from me to give the mode of cultivation: The land, a clover lay, was fallowed in the month of April, about seven inches deep, without manure, checked off a fraction over four feet apart each way, the corn soaked over night in water, rolled the next morning with plaster, and planted on the 13th day of May—after planting, the drag harrow was passed over between each of the rows to prevent the corn being washed out of the hills by heavy rains. When about knee high it was thinned, leaving three stalks in the hill, though there were many hills in which there were but two stalks. The after cultivation was with the cultivator at four different times, twice in each row, which is all the cultivation of any kind it received. When the corn began to tassel, it was slightly sprinkled with plaster.

At the General Scientific Congress held at Marseilles the subject of the cultivation of rice in the salt marshes on the banks of the Rhone was discussed, and it was proved that rice would thrive as well in that locality as it does in Italy. Samples were produced which had been grown at Mandirac, near Narbonne, where a trial on a large scale had been made.



FARM FENCE.

GEORGETOWN, DEC. 7, 1845.

To the Editor of the American Farmer:

DEAR SIR.—A friend requiring a fence for part of his farm, which was overflowed by a creek, and his fences continually liable to be carried off by the force of water and logs, I suggested a cheap one, a sketch of which I enclose.

It is common post and rail—the posts sawed off at bottom about six inches below the bottom rail hole, or so as to allow a two inch hole to be made through the post between the lowest rail hole and the end of the post. Another two inch hole is to be made about three inches from the top of the remainder of the post. Set the remnants or short pieces of post, and after forming three parcels of fence, raise it and pass a continuous pole through the two portions of post, so as the fence will move as an inverted water gate, either

up or down the stream—another pole at top, on which at every post a board, (say six feet long and six inches wide) must be fitted to be used as a brace. The fence should then be inclined up stream, (say two feet out of perpendicular,) and the brace set, of course when the force of water is so great as to ruin a fence, this will be thrown over, brace and all—at least the top and bottom rail should be pinned. The top pole is for a hinge for the brace, besides making the fence higher, and the bottom pole is for the fence hinge and a bottom rail. The object in dividing the fence in sections of three parcels is to admit of its being easily raised after a freshet, and to allow a single log to throw only part of the fence.

If you think this worthy of an insertion, you will oblige at least one

SUBSCRIBER.

TREATMENT TO MULES.—My team turns out about 4 o'clock, these days—say, about daylight; at 11 o'clock, the horn sounds, which calls them from the field; the mules are all turned into a lot, where my cows are fed and milked, having in it a trough fifty feet long, under a roof, in which salt lies the year round, with ashes occasionally mixed therewith. Here the mules walk about, wallow, and rest until cool; when they are turned into a horse lot adjoining, and driven in one corner to water, they, of their own accord, return to the stable, where food is present, each one to his stall, there tied, curried, and rubbed; my manger is never empty. At 2 o'clock, P. M., the horn again sounds, when the hands turn out, having watered again, and work until dark, when they return to the lot, and undergo similar treatment.

I use no racks, I use no long provender; and about half the time I use cob and corn meal; provender and the latter is thoroughly sprinkled, so as to be damp, with a weak brine. I feed about one week with the meal above mentioned and cut stuff—being fodder, millet, hay, and shuck—another week on corn and cut stuff. My roft—(Webster says trough)—is 2 feet wide at bottom, 1 foot deep, 2½ wide at top, and 5 feet long, with a portion of about 20 inches for corn; it is cleaned out of every thing, once a week, and when wet stuff has been used is well cleansed out with a cloth wet in brine.

This is my mode, and, by the by, except one mule,

I have not had a case of colic, since the sheriff, et al id omne genus, drove me out of fine doings in 1839, to attend to this small business. I say now to friends North, South, East, and West, I do not in truth consider there is anything in this but system, and believe it was my profession that gave me this, which leads me to say, as I do believe, that the doctors of America are bound to be as useful men to this country, in giving more system to the science and art of agriculture as any other class.

M. W. PHILIPS.

EDWARD'S DEPOT, Miss., June 15, 1846.

[Amer. Agriculturist.]

A HINT TO DAIRY FARMERS.—Last week we took an opportunity of visiting a farm occupied by Mr. Dumbrell, who has adopted the system of tethering his cows upon a somewhat new and profitable system. The land is of a light shrubby soil, and through the judicious management of the tenant, by the economical use of liquid manure, and by judicious depasturing, he has brought the land into a high state of cultivation. The Alpha and Omega of his system is, perhaps, that of root culture, which has enabled him to keep a much greater number of cows upon the land to the acre than is to be met with in the neighborhood. The great difficulty which most dairy farmers meet with in keeping cows, probably, during the two months preceding the hay harvest, has been overcome by Mr. Dumbrell, who, by tethering the

cows is enabled to make the meadows of comparative smaller dimensions than is customary, yield food in sufficient abundance for his dairy. The usual way of tethering is to allow a cow the range of a circle to the extent of the chain; and when it has eaten down its food within its area it is removed to another spot. Instead of doing this, Mr. Dumbrell tethers his cows with a chain of twelve to fifteen feet; and when it has consumed the grass within its reach, the pin is removed onward a foot or a foot and a half; the cow then eats this quantity, and is again allowed another bite of the same extent. This plan prevents the animal from treading on the food which it consumes while quite fresh, and the chain assists in distributing the droppings. The field is thus fed over evenly, and all is consumed and none trodden upon. Mr. Dumbrell professes to realize good profits from his system, and with a degree of liberality highly creditable to his character reserves no information from his visitors.—*Surrey Standard.*

ON THE MANAGEMENT OF PIGS.

There is probably no animal so much libelled, so unjustly denounced as filthy, so preposterously accused of what he is not guilty of as a pig. To say "as drunk as a pig," is an undeserved stigma upon his character for temperance. Is there alcohol left in the brewer's grains after the smallest of the small, the table and the lamen-table have been extracted therefrom? As to his proverbial dirtiness look into his sty and see if his habits of cleanliness are not of a superior order to those of other domestic animals. To be as "stupid," as "ignorant," &c., is contradicted by the fact that a considerable number are regularly perambulating the provinces in caravans as learned professors for enlightening the country "raws" at fairs.

To speak seriously, there is, perhaps, no animal in a domestic point of view more valuable than the pig, and after a life spent in quietude and contentment in a space of ground many animals would pine and die in his whole carcass, even those portions which in other farms produce are thrown away or thought little of, are all rejoiced in as luxuries, and then his jolly sides form the finest and best pieces of furniture in the dwellings of a large portion of the inhabitants of this happy land.

There is in the economy of raising and feeding pigs a vast improvement required in practical management. The usual construction of the sty is bad, commonly placed so as to fill up some vacant corner, often in a situation where the eaves of some higher buildings drip into it; this with imperfect drainage from the sty, and the dung kept for days, sometimes weeks inside this place of confinement, render these dens anything but what the animal requires.

It is the management of breeding that is most defective, there being generally no system, no order of regularity, attempted. The sow is put to the boar at all seasons of the year, and the progeny often come into the world untimely. The productions of this animal might be regulated with periodical exactness, which would be beneficial to the stock, and advantageous to the feeder and breeder.

Suppose a row of sties, one row in each, for they should be constructed small. We will begin the year in November. The boar may be put to each sow during the month (probably during the latter half of the month,) the period of gestation will end in March, early in the month; the season is then favorable for the growing progeny. After an interval of 10 weeks (a sufficient space of time, and longer than is requir-

ed for the litter to get away,) the boar is again put to the sow at the end of May; this second litter will fail in the next September (a good and seasonable period,) and the young get away the following November, to follow out the system for another year. The advantages here are, the seasonable periods of gestation, and the growth of the young; the uniformity of coming in together affording a saving of time and labor and attendance. The food should be prepared for the different states of the sow's requirements; in the early part of her time turnips, Swedes, grains, &c., for the November period; and green vegetables, or any odds and ends of growing produce, for May and some following weeks. More generous food is required as the time of farrowing approaches: and good living, such as oatmeal, polliard, &c., when the young require nourishment.

The most remarkable contrast between this animal and the sheep, cow, &c., is in the produce of its young, for while the latter are confined to one or two except in rare cases, the former averages when full grown not less than ten or twelve, often more. If, therefore, number be of value, the intrinsic worth of this animal is very superior to other breeding stock.

It is a common practice, but a mistaken notion as to the profitable advantage of the system, to let a young sow have but one litter, and then being fattened she is of the same age as those generally killed for bacon, and equal to them; this is true, but for the first litter, on account of her age, the produce is small in number; it is only upon arriving at mature age that the prolific powers of this creature are shown, and that too for a series of years; being then not equal in quality as bacon to a younger animal, but fully making up for loss in quality by size.

The aptitude to fatten is a marked peculiarity in this branch of stock, and to secure its speedy and effectual attainment, it is necessary to provide dry lodging—the advantages of a well-drained sty can only be known from practical experience; the habit of the animal, in the excrements being found in one spot, generally the lowest ground, plainly indicate that nature intended him to be cleanly to thrive, and thrive he will to a degree under such circumstances calculated to content and delight his feeder.

Perhaps one of the most interesting scenes in rural life is the working man's care of, and attention to, his pig and his sty. It is only in the Irish cabin that our hero is the principal member in the family circle, and takes his meals as such; with the English cottager he is kept in his proper station in life, and with consistent treatment. To keep a pig is to this man a point of distinction to arrive at his sphere, it is the line of demarcation between the industrious peasant and the poor laborer, between poverty and daily bread: the possession of the treasure is to him a rise in the affairs of life, it has a cheering influence upon the inmates of the cottage circle, and a commanding influence in his own private circle of friends. And when some kind neighbor leaning over the sty, asks how the pig goes on—before any inquiries are made after the family—the self-satisfied response of "Why he's thriving"—displays a fervency of good feeling and of thankfulness. Long may thy hardy sons of toil, oh, happy England! possess this time-revered reward of their honest labors.

There is no doubt but that the object here descended upon is one of the most valuable productions in agricultural affairs. As food it is a long relished article, and a more general diet in this country than any other animal food, and yet the creature itself, like other useful dredges, is not looked upon by the mil-

lion in a respectable comparison with his brethren of the yard and the fold; although he may be treated contemptuously while living, yet the most fastidious fancier of his vulgarity will condescend to partake of his dried haunches, and will, like the over-serpulous Mahomedans, at length "eat up the hog."

—*Agricultural Gazette.*

MANAGEMENT OF SHEEP.

STAFFORD HALL, Dec. 21st, 1846.
Washington Co. Md.

To the Editor of the *American Farmer*:

DEAR SIR—I was much pleased with your extracts from the American Shepherd, and remarks thereon upon the management of Sheep. I have been lately looking over that valuable work, and was so much pleased with the No. 1 plan for racks, page 252, that I have since had a good number made, and find them to answer the purpose admirably. I prefer them to anything of the kind I have ever met with—and think that all farmers who keep sheep should have them whether their flocks are large or small.—The best plan for troughs is, I think, to have them dug out of oak or walnut trees—30 or 40 feet long, or as the size of the tree, the longer the better—the tree to be first trimmed off and squared 10 by 6 inches, then dug out, say 4 inches deep, 5 inches wide at the top, 6 inches in the middle, and rounding at the bottom; made in this way, the stock cannot so easily throw out the feed, as they could if the troughs were dug out square. These troughs I set upon blocks about 7 inches thick to keep them off the ground and clean; it takes about 70 feet of trough room for 100 sheep—troughs made in this way, and well taken care of, I think will last at least 20 years. I shall be pleased to see in your next number, the extract from the American Shepherd, of plan No. 1, page 252.

Yours, truly,

WILLIAM DODGE.

MODES OF PODDERING—RACKS.

The custom so general among sheep-formers of strawing fodder on the ground, is attended with a vast waste in the aggregate, and a corresponding ill-doing of the flock. No animal is more nice in its habits, or more keen in its sense of smell, than the sheep; consequently, if their fodder is thrown upon the ground, in moist weather, two or three passing over it, will cause the whole flock to reject the greater proportion, and thus from day to day their appetites are unsatiated. The waste from this slovenly practice during one season only, will more than counterbalance the cost of suitable racks.

The kinds of rack most generally approved conform to those represented in the cuts, or are very similar.

Figure 1 is a model of those used by the writer for many years. They cost but little, and little waste can result from their use; and are also light, and therefore easily removed, which is sometimes necessary whether feeding is done under cover or not. Where, however, the severity of the climate compels feeding wholly under shelter, the kind designated by figure 2, appears admirably adapted for the purpose. The writer, however, never having used any of this description, cannot speak confidently whether their superiority is greatly over the other kind, and must therefore refer the reader to the remarks concerning them of several of his correspondents.

The upright pieces or posts of figure 1 should be of pine or hemlock scantling, 2 by 3 inches, and at least 2 feet 9 inches in length. The lower boards 12 inch-

FIG. 1.



FIG. 3.

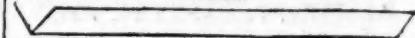


FIG. 2.



FIG. 4.



es in width, and the upper 10 inches; the spaces between them 9 inches; and width of the rack 2 1-2 feet. The most convenient length is about 12 feet, and if thus, 6 will be required for 100 sheep of the Saxon and Merino varieties, or grades of these, when full grown.

For lambs, the width of the lower boards may be reduced two inches, the top board not any, and the space between, less about two inches, the width of the rack four inches less, and the posts shortened three inches.

From the length of the posts, an allowance, it will be seen, is made for nailing the lower boards two or three inches above the bottoms of them, which is proper. Five racks, if each is 12 feet long, will be required for 100 lambs of ordinary size. There should be no crowding when eating.

The front and upper edges of the lower boards should be planed slightly, to prevent the wool from the breasts and necks of the sheep from being rubbed off. To secure the boards permanently to the posts, spikes should be used of sufficient length to clinch. Four spikes to each side and end board are necessary.

Figure 2. The most correct idea of the construction of this is given by the cut, which represents one sawed in two crosswise. Six pieces of 3 or 4 inch scantling and 33 inches each in length are required for a rack. The shelving boards, as seen above the heads of the sheep, are of $\frac{1}{2}$ inch stuff, and 14 inches in width, and are very necessary to prevent hay seed and chaff from falling into the necks; and further, the hay, if pulled down faster than eaten, cannot waste, as it is saved by the troughs. The front board of the troughs should be 9 inches in width; the space for the heads of the sheep 10 inches; and from the top of the space to the end of the support, 14 inches.

The triangles AA represent the troughs. This is a double rack, but on this principle they can be made single, and placed against the sides of the shelter. They are more expensive than the kind first described, but have decided advantages for feeding within doors, as troughs are connected.

TRoughs.

The boards of the trough (Fig. 3) may be of hemlock, or pine; the former, however, are not only cheapest, but hold nails more firmly. They should be 10 inches in width, one inch thick, and nailed together. A notch must then be sawed precisely to

correspond with the flare of the trough into a two-inch pine plank, a piece of which 12 inches wide and 15 inches long constitutes the proper dimensions for the end pieces, or legs of the trough. (See end piece, Fig. 4.)

THE AMERICAN FARMER.

BALTIMORE: JANUARY, 1847.

THE POTATO DISEASE.—We have received through R. Sinclair, Jr., Esq., a valuable essay from the pen of that eminent practical Prince George's farmer, Col. W. W. W. BOWIE, on the subject of the Potato disease—The late hour at which it reached us, we regret to say, has prevented its appearance in this month's *Farmer*, but it will certainly be given in our next.

TALBOT CO. AGRICULTURAL FAIR.—By some means, we omitted to notice the Fall Exhibition of the Talbot Co. (Md.) Agricultural Society, held at Easton. We have received a copy of the proceedings, and shall lay them before our readers next month.

THE CHEMICAL PRINCIPLES OF THE ROTATION OF CROPS.—We are indebted to the author for a pamphlet copy of the Address upon this subject, delivered by Dr. D. P. GARDNER, before the American Agricultural Association of N. Y. on 4th March last.—We shall commence its publication in our next, and if possible, consistent with other arrangements, give it entire, feeling conscious that we cannot do a more acceptable service to our readers.

We have received a copy of the Proceedings of the New Castle (Del.) Agricultural Association, and will in our next make some extracts therefrom.

ESSAY ON THE TEMPERATURE OF THE ANIMAL AND VEGETABLE KINGDOM.

We have received a communication, bearing the above title, from the pen of Robert Serrell Wood, Esq. of Mount Hermon. The essay comprises upwards of 29 manuscript pages, and treats upon a subject of deep interest in animal and vegetable economy. The author controverts the doctrine of Liebig with regard to caloric and the offices performed by the organs of respiration. The subject is, as the reader may imagine, one of abstruseness, and as the writer has selected as his antagonist, the lion of organic chemistry, no one can charge him with a want of chivalry. Those will not, who know how to appreciate the deference paid to great names in this our Republican land. In assuming this position, Mr. Wood has voluntarily placed himself in a situation where the odds may be fearfully against him, as the name of Liebig is of itself a tower of strength; but aware of his peril he marches forward with undaunted strides, towards his opponent's fortress, and it is not a little curious, that, while he admits the truthfulness of his premises, he

lays hold of those premises and turns them to his own advantage to sustain his assumed position, so that while he appropriates to his individual use the munitions provided to his hand by so well appointed an adversary, there can be no lack of the material for carrying on his siege.

The essay shall be laid before our readers at as early a day as possible.

We have received a communication from another correspondent, also antagonist to Liebig's theory—We have only time to notice its reception.

CHARCOAL ON WHEAT LANDS.

As it has been pretty well ascertained that every succeeding fall of snow brings with it very notable traces of ammonia, the experiment might be worth trying for the cultivators of wheat to sow over portions of their wheat fields, when covered with snow, pulverized charcoal at the rate of about 20 bushels to the acre. As we are averse from making costly experiments we would not desire that each farmer, who may venture upon carrying our recommendation into effect, should do so upon more than one or two acres. The cost of such experiment would be trifling, and would test the efficacy of the application just as well as though the whole field were covered. Indeed, it would prove more satisfactory, as by marking the acre or acres sowed with the powdered charcoal, and comparing its product with that grown on an equal quantity of the adjoining land at harvest time, he would be enabled to tell whether it was or was not of real value.

The office to be performed by the Charcoal would be that of fixing the ammonia which might be contained in the snow, as also that which is comprised in rain. Nor would its action cease with the conclusion of winter, as it would continue throughout the season to act as a condenser of all nutritive gases, alternately attracting, and giving them out, as the necessities of the growing plants might require fresh supplies. Among the capacities ascribed to charcoal is that of absorbing 90 times its own weight of such gases as we have alluded to, and if this ascription be founded in fact, its value as a provider of food, cannot well be too highly appreciated, as from the fact of its giving it up to the plants when so absorbed, and being promptly ready to reabsorb and give out again, there is no telling the amount of readily prepared food it might bring to a growing crop. At all events, the experiment is worthy of being tried, and we sincerely hope that the enterprise will not be wanting to carry our recommendation into effect.

OUR PRIZES—Messrs. J. F. Dent of St. Mary's co. Md., Wm. Dodge of Washington co. Md. and P. H. M'Leod, of Montgomery co. Md. having obtained the largest number of subscribers to the "Farmer," are entitled, according to our proposition, to the highest prizes, in the order named.

We copy from the Albany Cultivator the following notice of the Water Ram of our fellow townsmen, Mr. BENSON, a description and cut of which appeared, some months since, in the *American Farmer*, where it was originally introduced to the public through the means of this press. We have frequently seen notices of it, in various directions of our country, and feel that we have not done justice to the invention by our forbearance in noticing it more frequently. The following statement is worthy of attention, as it exhibits correctly the power and value of the Water Ram:

BENSON'S HYDRAULIC RAM.

MR. TUCKER—We have lately been invited by Mr. Luther Griffin to witness the operation of one of these machines for raising water, set up by Mr. G. in this town for public inspection. The location of the machine was near a spring issuing from the base of a high bank, extending for considerable distance parallel with the stream produced by the spring, and near the the summit of which was situated the farm-buildings of the occupant. Some six or seven rods below the fountain head, a small dam was built in order to give the fall necessary for the action of the machine, and some three or four rods lower down was the machine itself, so that the distance from the apparatus to the top of the bank was considerably greater than it was from the fountain. From this location we saw the water running up this steep bank, a distance of perhaps fifteen rods, in quantity sufficient to answer all the purposes of a large farm-yard and the house. But the water did not stop long in its aspiring course to subserve these purposes, for, by a continuous pipe, it passed, first, through the top of a high apple tree, (then bountifully laden with noble fruit,) from which, with the sprightliness of a squirrel for aught we know. (it "kept dark" in the pipe so that we could not see its motions,) it passed to the roof of a cow-house, which it traversed for 30 or 40 feet, when it became more aspiring and sought the roof of the barn, and after having reached the ridge of this, perhaps for the want of something higher to climb after, it passed itself down on the other side, at a height of seventy feet or more above its fountain, while the little toy pond that fed the saucy fellow that sent it up so high, exhibited a surface as serene and beautiful as though no dream of aiding or abetting in such roguish mischief had ever entered its bosom.

This illustration of the power so small in its compass, and so simple in its fixtures and operation, as you may well suppose, altogether exceeded our expectations, and were it not an age when the most wonderful things very often become the most probable, we should have doubted much whether such a performance could have been exhibited. But we saw the feat, and so did many others, so that if our own senses are to be credited, we must believe.

The construction of the power is very simple, and in our view not likely to become deranged or get out of repair in any of its parts, or more frequently than would be the case with any ordinary aqueduct. If in process of years the valve and the spring that regulates it should become "worse for wear," as they necessarily must, any common mechanic can replace them with the greatest ease.

The advantages of this machinery will doubtless be realized for many practical purposes. In places where buildings are situated on elevations, they will

be found convenient for raising water from lower lands where the benefits of ordinary aqueducts cannot be realized. At large manufacturing establishments they may be employed to elevate and carry water from the main stream to reservoirs in any part of the premises, to provide against damage in case of fire. They may also be made useful for filling tanks to water gardens, where the stream is lower than the garden.

They are so constructed, that where the fountain from which water is to be taken is not sufficiently large to answer the purposes for which it is conveyed, and at the same time become the propelling power to move itself, the machinery may be moved by water from another fountain or stream; as for instance, a spring of soft water breaks out from a bank, near which a stream of hard water passes. The hard water can be made to drive the machine while it carries the soft water to the desired point, or vice versa.

W. BACON.

In the report of the Committee of Exhibition of the Franklin Institute of Philadelphia, we find the following notice of this valuable invention :

"No. 1511, 1523, and 1693, Hydraulic Rams, by H. Birkinbine & C. Farnham of Philadelphia, and B. S. Benson of Baltimore. The rams of Birkinbine and Benson were kept in operation in the lower room, and played an important part in the exhibition; to all appearance working effectually and satisfactorily. In Benson's arrangement means are afforded for throwing up spring, or other water than that which gives the lifting power; the operation of which was satisfactorily exhibited.—This mode is claimed by him, and is an important modification where pure water is required.—The judges had not the means in the room, of testing the relative merits of these machines, and are consequently unable to make an award of premiums. They therefore recommend that the makers submit these articles for a special examination by the Committee of the Institute on Science and Arts, in order to test the power and comparative merits of these useful contrivances for raising water."

We learn that Mr. Benson is now manufacturing his Rams on a very extensive scale, at the City Block, in this city, where those interested can see one in operation.

CAPACITY OF THE GRAIN AND LIME BUSHEL.

BALTIMORE, DEC. 22d, 1846.

MR. EDITOR—Dear Sir,—Please oblige some of your subscribers, by stating whether there is any difference in the capacity of the bushel used for measuring grain and that for measuring lime, and what is the depth and chamber and cubic contents of each of these measures as used in Baltimore or Baltimore County.

ANSWER.

The capacity of the bushel used for grain, and that of the one used for measuring Lime, in this city, is the same, both being what is called the *Winchester bushel*, which is 18½ inches in diameter and 8 inches deep, containing 2154.42 cubic inches. Grain being subject to the *strike*, or even measure, a bushel of grain would of course contain that number of cubic inches; but as lime is *heaped*, a bushel of Lime should therefore comprise 2815½ cubic inches.—*Ed. American Farmer.*

A PRODUCTIVE FARM.—MR. JAMES GOWEN, of Mount Airy, in answer to a correspondent of the Farmer's Cabinet, who objected to the policy of Mr. G. in expending a thousand dollars for manual labor, on his farm, which comprises but 100 acres, as stated in his letters heretofore published, gives the following statement of the produce of his farm for the last season:

Referring your readers to the June No., 1845, for my Report to the Committee on Farms, I shall for their further satisfaction, and to give the science of agriculture something like fair play, set down the results of last season's operations on this farm of 100 acres, assuming the yearly wages at one thousand dollars.

I raised not less than one hundred and twenty tons of hay—say at eighteen dollars per ton, is

\$2,160 00

400 bushels wheat, at \$1 00	400 00
300 do. rye, 80	240 00
100 do. oats, 40	40 00
1000 do. corn, 60	600 00
500 do. potatoes, 75	375 00
900 do. carrots, 40	360 00
600 do. ruta-baga, 25	150 00
600 do. sugar pars, 40	240 00
1500 do. turnips, 12½	187 50

15 hogs slaughtered, weighing 45 c. at
\$5 per C. 225 00

Cattle, calves and pigs, sold, 347 00

Actual net sales of milk and butter,
over 1,400 00

\$6,724 50

independent of milk and butter, meat and vegetables, poultry and fruit for family consumption. While producing this, I maintained upon the farm upwards of fifty head of cattle, seven horses, and some thirty head of swine, and the only outlay incurred for feed during the year 1845, was about three hundred dollars for ship stuff or middlings, which was principally fed to horses with finely cut timothy hay; and part made into slop for the swine. The horses had no other feed—they get neither corn nor oats, and the hogs when fattening, had little else but imperfect ears of corn, a little slop, and occasionally small potatoes cooked for them.

REMARKABLE DISCOVERY IN NATURAL HISTORY,

How to tell with certainty, the qualities of a Milk Cow by certain visible external signs.—This is the discovery of M. GUENON, the son of a French Gardener, after more than twenty years of close observation. It was translated from the French, by Mr. Trist, of the State Department, who professes unlimited faith in the truth of the theory.

Several Committees of different Agricultural Societies in France have pronounced it invaluable. Mr. Trist's translation, with all the engravings to illustrate the system, was published lately in the Farmer's Library, a splendid Agricultural periodical, edited in New York, by Mr. Skinner.

A subscriber to the Library, one of the most intelligent and respectable farmers of Massachusetts, has lately taken much pains to satisfy himself on the subject and the result is the following letter, with which we have been favored in advance of the December number of the Farmer's Library. Truly, as the writer says, it may be classed among "the greatest discoveries of the age"—and yet not greater than vaccina-

tion itself, which was ridiculed and opposed for twenty years and more.—American.

PRINCETON, October 15, 1846.

Dear Sir:—I received your favor of the 8th inst. desiring me to state my opinion of the value of M. Guenon's *Treatise on Milk Cows*, translated from the French and published in THE FARMERS' LIBRARY. On my first meeting with this Treatise, I was so impressed with its value, from my previous knowledge of some general marks whereby the milking properties of cows may, in some measure, be determined, and from the fact that I had myself noticed the oval marks above the hind teats, mentioned by M. Guenon as indicating good milking qualities, that I immediately commenced the study and application of his method to every cow that came under my observation. I have examined more than one hundred cows, and often carefully marking their escutcheons. I have become satisfied that M. Guenon's discovery is one of great merit, and can be relied upon as true. I have no doubt that I can judge very nearly as to the quantity and quality of the milk any cow will give at the height of her flow, and also the time she will continue in milk after being with calf.

The way taken to convince myself of the truth of M. Guenon's method has been to visit the cow-yards of some of our principal dairy-farmers, and examine the escutcheons and marks on their cows, and make up my judgment as to the quantity and quality of milk each cow would give at the height of her flow, and how long she would continue in milk after being with calf; then inquire of the owners how much milk their several cows would give at the height of their flow, and how long they would hold out after being with calf; comparing the owner's account with my own judgment, I find I have been mistaken in only five cases, out of more than one hundred examined.

I have great confidence in M. Guenon's method of testing the milking properties of cows, and consider it one of the great discoveries of the age. The advantage of this discovery to our dairy farmers, enabling them, as I think it does, to determine the milking properties of their young stock at an early age, must be very great, and will be appreciated by every one who is in the slightest degree acquainted with the subject. In my opinion, no dairy farmer, after acquainting himself with M. Guenon's discovery, need possess himself of a bad milking cow.

M. Guenon informs us that his system is applicable to calves, three or four months old. I have traced the escutcheons upon calves as early as two or three weeks old, and I see no reason why their value as future milkers may not be judged of at this age as well as at any other age.

Yours, respectfully, JOHN BROOKS.
To J. S. Skinner, Esq., Editor of the Farmers' Library, New-York City.

From the Georgia Journal.

MASTODON COTTON.—Lend me Mr. Editor, a place in your paper to reply to the numerous letters from your State upon the subject of the Mastodon Cotton. I will endeavor to answer all the important enquiries made of me.

It produces as many pounds per acre upon all kinds of soil (not to say more) as any other variety. In this county, (Lowndes) it has been cultivated upon almost every variety of soil, upon black prairie hammock and slough land, upon poor oak hedges and on sandy land both old and new, and the product will uniformly compare with all other varieties produced

on the same land. The staple of the Mastodon Cotton is about double the length of that of all other varieties in this country, except in Sea Island, from which it presents no marked point of difference," and is of remarkable strength and fineness; from this it derives its real value.

The tenacity with which it adheres to the back end of the boll is of great value to the planter. At this writing, (Nov. 5,) I know planters who have not gathered a pound of their Mastodon Cotton, for the reason that it does not wash out by the rains, yet from its increased size of boll, being double that of other species, a hand will pick as much per day as of any other cotton.

In regard to the climate best adapted to its culture, I will remark that I have letters from Georgia, Huntsville, Ala., Tallahassee, Fla., Louisiana, Texas, &c., and in every instance which I have heard of, the expectation of the planter is more than realized. This fact is corroborated by the universal opinion of the press. If Mastodon Cotton, be a humbug, it is one of those humbugs which meets universal approbation.

That it does not degenerate we have the proof of five years culture. It is cultivated in the same way as other cotton, only it requires a little more room. I would especially guard the planter against spurious and mixed seed, which is almost of equal importance. Extensive frauds were perpetrated last year in the sale of spurious seed; thousands of bushels were purchased in Mobile and New Orleans for Mastodon Cotton, which had none of the characteristics of the genuine. In many instances the most respectable merchants were imposed upon. A planter learning that Mastodon Cotton seed was selling at \$5 in the market, would ship a cargo of such seed as he might have and christen it Mastodon. The merchant, perhaps not knowing to the contrary, would sell it for Mastodon Cotton seed, pocket his commissions, and it is called a fair business transaction. I am of opinion that there has been much more spurious seed sold for Mastodon than there has been that was genuine. They have not scrupled to post up conspicuously flaming bills assuring the public that they have Abbey's Mastodon seed, and profess to have certificates of the fact. That my seed may be obtained when desired, I have had a tin plate prepared with my name, residence and name of the seed cut, which, with a brush, is transformed to each sack; my sacks are made of Lowell cotton.

Now Mr. Editor, if I can show the planter the folly of purchasing "a few bushels to get a start," I shall render him a signal service and find a more ready market for my seed.

I assume that a planter may profitably purchase Mastodon Cotton Seed at twenty dollars per bushel, (a price which no one would presume to ask) according to the prices obtained last year, being double that of short staple cotton. The average of Mastodon was about 14 cents. Let me assume the average of short staple cotton was 7½ cents, which I suppose is too large.

25 bushels Mastodon seed at \$20 per bushel, is	\$450 00
This will plant 100 acres, which will produce	
say 60 bales weighing 400 pounds each,	
or 24,000 lbs. at 7½ cents, is	1,800 00

60 bales Mastodon Cotton same weight,	
at 14½ cents, is	3,480 00
Deduct amount paid for seed, say	500 00

And we have

Subtract the amount of 60 bales of short staple	1,800 00
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And we make a clear profit of \$1,180 00
Suppose however, that Mastodon Cotton shall net but 50 per cent. more than short staple cotton, and we make a nett profit of \$400.

My seed may be obtained in Charleston, Augusta, Savannah, Milledgeville, New Orleans and Montgomery, Ala., and of Albert & Prentice, and Tooher, Gay & Co Mobile Ala.

In regard to the estimation in which Mastodon Cotton is held in Europe, I hand you a letter from a commercial house in Liverpool, addressed to my brother a few weeks since. It will be seen that in England it sustains the high reputation it has won in the New Orleans market.

M. ELLIS ABBEY.

Columbus, Miss. Nov. 5th, 1846.

From the Farmer's Monthly Visitor.

Henniker, N. H., Aug. 31, 1846.

HON. J. HILL:—Some two or three weeks since I noticed an article copied by you from "The Philadelphia Farmer's Cabinet," (I think it was) originally communicated by J. S. Griscom of Moorestown, N. J., entitled, "Prospects for emigration in Eastern Virginia," in which the author offers to give further information on personal application or by letter post paid, &c. At the request of a friend I addressed a letter to him, and received, a few days since, an answer, of which the following is a literal copy.

Presuming, from the interest you take in the agricultural interests of our country, that its perusal would not be without interest to yourself, and that you would be more likely to make such a notice of it, as is suggested near the close, than any of the other editors, I have concluded to take the liberty to send you a copy of it, and you will make such use of it (if any) as you please, which in your opinion will be consistent with the feelings and wishes of the author. I do not wish, however, to have my own name or this note to be made public.

I am, sir, with much respect,
Your Ob't Serv't,

"Moorestown, Burlington Co., N. J.
8 mo. 21, 1846."

"RESPECTED FRIEND:—Thine of 11th inst. came to hand last evening. It gives me sincere pleasure to answer thy inquiries. I have engaged in this concern solely because I believe that in opening a new field for emigrants from the North, I shall be doing my fellow men service. I own no land in Virginia, and have no pecuniary interest in view. I give my views freely, and so far as I am able, without gloss. From my own knowledge I believe Eastern Va. one of the most favored spots upon the face of the earth, in its natural endowments—the soil, climate, abundance of means to restore and sustain the fertility of the soil, its unsurpassed navigable rivers, stored with a profusion of fish, oysters and fowl, and affording the easiest and cheapest transportation to any part of our country, or any other country. Railroads, too, are extending wherever there is business for them. We go now from Philadelphia to the extreme south part of the State in about 20 hours, and the cost is about \$8 or \$10. The whole of the country from the meridian of Washington to the Chesapeake is open to the industrious people of the North at prices varying from \$1 to \$30 per acre; at the latter price the buildings are fine and costly, often embracing very

valuable mills, &c. As a general rule, good land with tolerable buildings and facilities for an industrious man to make a living at once, may be had from \$5 to \$8 per acre. There are unnumbered beautiful situations on the Potomac, Rappahannock, York James and Appomattox rivers for sale. I give the preference to the two last named for a beginning; they have the advantage of climate, markets and facilities for transportation and travel above the others. In this section the farmers in many instances do not house or feed their cattle and sheep in winter at all; this circumstance alone ought to have great weight with farmers in your region, where so much of the labor and expense is necessary to support their stock in the long winters when it is not productive.

"I have received from a committee of the Petersburg Ag. Society a list of lands in that vicinity for sale or lease on very favorable terms to industrious northern farmers. It is the desire of all the intelligent Virginians to procure the aid of northern free-men, to enable them to introduce a complete revolution in their way of living and farming, and I repeat, that thousands and tens of thousands from the North may go there and find homes, vastly more eligible than in the Western States, and where they may live with much less labor and cost than in their present homes. I send a portion of the list above mentioned, and think a choice might be made from some of them that would suit thee and thy friend. It will be all essential to those who desire to retain their northern habits of industry and morality to go and settle in companies, so as to aid one another; this is the wish of all the Virginians, and in the vicinity of Petersburg there will be no lack of company, for already a large number are preparing to go there. All the properties offered to me in the upper country, that is, above tide water, are in large tracts; one, the estate of the late President Madison, is a very desirable one for those who wish to be away from the tide and from markets; the soil is as good as any in the Union, with many buildings; there are 1700 acres, and the owner offers it for \$18 per acre; it will be a splendid site for a company. Another, 28 miles N. W. from Richmond, of about the same size, with very fine buildings, mills, &c., is offered for about \$10 per acre. Another, near James river, a few miles from Cartersville, in Cumberland Co. of 1100 acres, is offered for about \$6 per acre; the latter would be let to a company of tenants on improving leases, with the privilege of purchasing in a given number of years, and so with many others. 850 acres, 3 miles S. W. of Petersburg,* 250 in cultivation, 100 meadow, abundance of marl—new house, cost \$2000, price \$12 per acre. 400 acres, 5 miles S. E. in marl region, \$5 per acre. 400 acres, adjoining, same price. 125 acres, 13 miles below, near river, in marl region, improvements, price \$800. 1000 acres, 10 miles above Petersburg, price \$4 per acre. 1000 acres adjoining this, 273 acres, 5 miles above, on river, good improvements, price \$3000. 260 acres, adjoining this, good improvements, \$6 per acre. 80 acres, 3 miles, one-half in wood, improvements, for \$500. 107 acres, 2 miles in woods, for \$550. 281 acres, 3 miles north, fine land, good improvements, \$5000. 180 acres, 5 miles below, good improvements, \$5 per acre.

90 acres, 4 miles S. E. in marl region, at \$4 per acre. 170 acres, 6 miles S. E. in woods, in marl region, \$4 per acre. 240 acres, 4 miles S. E. in woods, in marl region, \$5 per acre. 150 acres, 5 miles S. E. in woods, in marl region, \$5 per acre. 60 acres, 1 mile south, with improvements, \$15, with marl. 560 acres, 1 mile south, good new improvements, land in good order, \$15. 200 acres, 2 miles south, in woods, in marl region, \$3. 616 acres, 15 miles above, on the river, one-third in woods, \$7 per acre.

"All these are in the immediate vicinity of good markets for all kinds of fruit and produce; the country is healthy, good water; no country can possess greater advantages for Horticulture; all the fruits of our country attain the greatest perfection—even the Fig needs no protection in winter; fruits ripen there a month earlier than here, and at least two months earlier than with you. If you conclude to go there to see the country, I will with pleasure give you letters to my friends there which will insure you all the attention and facilities for an examination of the country that you can desire.

"I desire this information diffused as much as possible among your countrymen for their benefit, and would be glad if your editors would call attention to it in their papers. I have parted with all my extra papers, but will forward these some in future.

"Many of the properties named might doubtless be purchased for lower prices even than those named, and a little further from the towns, still much lower. If you conclude to go, I shall be glad to hear from thee again. I expect to spend most of the 10th month there.

"Respectfully and sincerely thy friend,
(Signed) "SAM'L S. GRISCOM.
"To ———, Henniker, N. H."

*I see by the census of 1840, Petersburg then contained between 18,000 and 19,000 inhabitants.

PRESERVATION OF SWEET POTATOES. *Mr. Tucker.*—I send you the following method of keeping sweet potatoes, which I have practised with complete success for several years, having now some large yams as sound as they were when dug.

Select a high dry spot, make a circular bed of six or seven feet in diameter, elevated a few inches above the surrounding earth by digging a trench 8 or 10 inches deep, and throwing the earth taken out of it on the bed; throw down a layer of dry pine straw, 7 or 8 inches thick; take the potatoes immediately from the patch as they are dug, and put them on the bed without being bruised, from 30 to 50 bushels in a bed. Over them throw a layer of dry pine straw, 5 to 6 inches thick; over the straw a layer of pine bark pulled from dead or decayed logs, throw on earth to the depth of six inches, and on the whole make a slight shelter of pine boards. Leave a small hole at the top of the bark without earth, covered with a piece of pine bark, to let the steam escape. In April, take potatoes and remove them to a dry and cool room in the barn or other out house, and spread them over the floor, and you can eat them till June or July.

H. B. F.

Kingston, N. C., 1846.

[Cultivator.]

HORTICULTURAL.

For the American Farmer.

ITEMS ON AGRICULTURAL EXPERIMENTS, FROM THE BRINKLEYVILLE ESTABLISHMENT, N. C.

MR. EDITOR.—Though press of business having been prevented from communicating for your useful periodical some months, I now offer you items on several subjects in a condensed compass,—and

1. As to my Vineyards,—I report progress therein by stating that the past vintage has yielded me the rise of forty barrels of wine, and that of a still improving quality;—every gallon of which, from past experience, I calculate will be good and saleable. Besides in same vintage I have sold a considerable quantity of grapes, sent for to my premises; and entertained hundreds of visitors, paying their entrance fee into my vineyards to partake of grapes. And to show the contrast of my American system of wine culture, with that of the European, in one particular, I state, while those in my vineyard were furnished with benches and other facilities, to reach the fruit on the canopies above; those gathering grapes in Europe, where vines are kept humble, or a few feet only in height, have to stoop downwards to gather.

As an evidence of the great bearing qualities of an American vineyard, managed the American fashion of letting the vines eventually run unchecked over scaffolding 7 or 8 feet high, and nothing but posts and main stem of vines seen beneath, I have to state that after a hundred persons at a time, had partaken abundantly, from about a quarter acre of vines nearest my house, the grapes abstracted could not apparently be missed; but the same sheet of fruit to appearance, was visible above. The kinds that diversified the said entertainment, were the Scuppernong, the Norton's Virginia Seedling—the Weller's Healepait, the Cunningham, and Fragrant. The last named fruit together with the Scuppernong, (also fragrant,) diffused a delightful perfume to a considerable distance of the premises. But I hasten to another subject, viz:

2. As to the Jerusalem Artichoke, I had tried the common artichoke, indigenous here—with some success—or had made on ordinary soil at rates of 300 bushels per acre. But having opportunity last fall a year, I purchased at 2 dollars per bushel, some of the Jerusalem. The result of their culture has surpassed my expectation. On different lots according to careful calculation I have made, at rates of 8, 9, 10, and even 12 hundred bushels per acre. To test the relative merits of the Jerusalem and common kind, I planted 3 rows on the same ground side by side, and they had the same culture. The one Jerusalem—and other two common kinds—the red and white. I dug 20 feet of each row and measured the product—as follows: the Jerusalem $1\frac{1}{2}$ bushels and 6 quarts. And common, each 6 quarts. Or about 3 times more of the Jerusalem than the others. Or calculating rows 3 feet apart, the 3 wide and 20 long, 60 feet square measure. Then for Jerusalem, stated as follows:

feet.	quarts.	bushels.	peck.	quarts.
As 60: 210x210=44000 : 54 : 1240 : 1 : 2 :				

As is 1240 divided by 9, equal to 137 bushels, and more. This disproportion is greater I suppose, through a dry spell in critical time, for the common kind, which caused the leaves to dry up, or *fire*, as we say here of corn thus injured. Perhaps more than half failure on this account; as more than double the

yield of the common kind previously. But most of the leaves kept green till frost. The stocks of the latter grew generally 12 feet high, and some 15. Common, several feet lower. From the best light and experience, I consider about 4 feet drills, and 2 feet in the drill best distance for planting the Jerusalem on ordinary ground. Of a lot planted thus I dug the distance of 10 feet one way and 4 the other—and found 3 pecks—which I calculated was a yield of 826 bushels and $3\frac{1}{2}$ pecks per acre,—5 stocks (12 feet high and very branching,) were on this acre of 40 feet. The ground was filled in every direction more or less to the depth of about 1 foot. In some instances, however, I have found artichokes, of the Jerusalem 3 and 4 feet from the parent stock, and as large as those nearer. The size of the Jerusalem tuber is not large—even less than the common. Their great yield is owing to the multitude of them perforating the ground in every direction. And their great profit of culture is their abundant supply of food for swine; and that without gathering even. For hogs turned in upon a lot of them, will not only live and thrive, but fatten also with about a fifth of the usual quantity of corn for fattening.

I find the best way of gathering, is to plow the ground flush, and some children, say, to follow the plow to pick up. But after gathering in this way, abundance is left for swine. When boiled and mashed, or cooked as turnips, they make a sauce for human food, esteemed excellent by most who have tried them. The Jerusalem are finer for pickles than the common, as the former is smooth and uniform shaped; while the latter rough and unsightly. The Jerusalem in shape and look resemble small sweet potatoes. So great is the yield, and so profitable for swine, that they are fast being introduced into general culture in North Carolina. In the western and more southern states their culture has been on the advance for several years past. It appears from experiments stated in various periodicals, that this esculent flourishes any where in the United States. But I hasten to close with a passing notice of one more item, viz:

3. The Okra—This plant recommended by Mr. Ellsworth of the Patent office, to have seed as good for coffee as the Java, I cultivated for that object.—Most of my family and those here trying this *American coffee*, prefer it to the *Eastern*. And it is certainly more healthy. With a few seed obtained from the patent office and elsewhere, I have made several bushels. The result of my experiments as to yield, is that an acre in good tilth will yield about 25 bushels of seed which at 60 lbs. per bushel, is 1500 lbs. which at ten cents per lb., is 150 dollars. To get the seeds from the pods, I pass the latter through my corn sheller machine. Beating the pods as wheat, will answer the same end. But all, most respectfully submitted by yours, and the public's humble servant,

SIDNEY WELLER.

Brinkleyville, Halifax county, N. C. Dec. 3d, 1846.

From Downing's Horticulturist. ROOT GRAFTING.

BY F. K. PHENIX, DELAWARE, WISCONSIN.

I have never seen in any eastern publication, what I consider by any means a full and accurate description of the best method of root grafting. And as this is new, so far as I know, and decidedly the most popular method of propagating fruit trees, and in many respects as decidedly the best, it seems to me that too great pains cannot be taken to ascertain and establish

the best mode of performing the operation. Root grafting is very applicable to apples, pears and plums—and I think is much the easiest way to work apples and plums; pears bud so easily that with any pear stocks, save seedlings, I should prefer budding. Seedling pear stocks I have never tried by grafting in the root and boxing as with apples, but I see no reason why they might not be used to as good advantage in that way as are apple roots—by grafting in which, as is well known, a great saving in stocks is effected. The following remarks apply particularly to the apple, as I have never tried grafting the plum or pear on their own roots, (though I have the pear several times upon apple roots,) in the winter and boxing them—but I have often root grafted them in the spring, and with the best success.

The roots for grafting must of course be secured in the fall, and should be fine, thrifty seedlings of at least two years growth, though our yearlings, which sometimes have roots nearly one-half an inch thick, make as fine trees as I ever saw. In preparing the roots for packing I always cut off the tops about six inches from the roots, in order to save room, and for convenience in hauling them when grafting. The roots are packed in tight boxes in thick layers with moist earth amongst them, and between the layers; the boxes I keep in my cellar. The boxes for packing away the roots when grafted, I have 24 inches long, 12 wide and 5 $\frac{1}{2}$ high on the inside, which not to be very tight, and will hold from 6 to 1200, according to the size of the roots and the closeness with which they are packed. When ready to commence operations, I take a quantity of the roots, as many as are wanted during the day, and after trimming off all the side roots quite close to the main root, say within $\frac{1}{4}$ th or 1-8th of an inch, I proceed to cut them up in pieces from 3 to 4 inches in length—never longer, marking the upper ends of the roots if necessary, in order to distinguish them when cut up; and throwing the pieces into a pail of water. If desirable to cut very close, the upper piece need not have more than one inch of clear root upon it. In regard to size—I have often been obliged to use roots not larger than a pipe stem, and where they were thrifty and perfectly sound, and set out under favorable circumstances, they have done well, still I greatly prefer larger. When the roots are cut, they are then washed by stirring and turning them a few minutes in the pail and changing the water once—leaving them, when washed, in the water. I then take my scions, and after marking the name of the variety upon a little stake 8 or nine inches long, (which I keep with them constantly, and in boxing put between the kinds,) I cut and prepare 2 or 300 grafts ready for setting and pile them up. The grafts I have from 3 $\frac{1}{2}$ to 4 $\frac{1}{2}$ inches in length, and with a tongue as in splice grafting. The cut or slant at the lower end of the graft, on which the tongue is made, should not with common sized scions, exceed about half an inch in length for various reasons; nor should it on the root. When the grafts are prepared, the roots are taken from the water, and piled up with the upper ends all towards you. The roots, one by one, as I set them, are thus prepared with a tongue, and the grafts inserted. They are then spread out, so that the outside moisture may dry off in order to have the grafting wax adhere. This is made by melting and stirring together four parts rosin, and a half beeswax, and one of tallow. I put it on warm, or while in a fluid state, and with a shaving brush, which is very neatly done. It is not by any means necessary to have it perfectly tight—a little put on the side where the bark of the

root and scion meet, and on the root where cut, is all that is requisite. Many if not most of those who graft in the root, use waxed strips of cloth or paper, and some tie with strings, using no wax, but these in my experience are tedious and perfectly unnecessary operations. Last spring I set over 20,000 in the way I speak of, and with excellent success—indeed I have sometimes, when planting out from the boxes, taken out 500 without finding a single graft that had failed. After being waxed, the roots are ready for boxing. The box is first partly filled with fine earth, some of which is packed up against one end; I then take up some of the roots, and even the tops of a handful in my hand, and set them up slanting against the earth, beginning at the right hand side of the box, with the tops about two inches above it. In order to get the tops even and keep the tiers separate across the box, I use a thin, narrow strip of board, which reaches over the box and is placed behind every fresh tier whilst putting it in—and also a little punch to jam the earth down firm behind each tier and next to the box. After placing the row, the dirt should be worked amongst the roots and packed snugly against them. There need be no fear of disjoining them, unless they are handled very roughly. When the box is full, it is set away in a cool cellar, where the mice cannot get at it.

In regard to their freezing, whilst thus boxed up, I have had no experience, but I have it from a first rate nurseryman who has tried the experiment several times, that it does not injure them in the least, even if they freeze and thaw out two or three times during the winter—that is, if they are well boxed. I do not think I should like to have them frozen after they had started to grow much, nor should I care about risking it any way if it could be avoided. When the boxes are exposed to the heat and light, and supplied with water, the shoots put out exceedingly rapid, and hence they should not be thus exposed till about two weeks before setting, otherwise they will grow so long and weak that it will shock them severely when planted out. They should be set as early in the spring as the ground will admit—though I have known them set as late as the middle of May, and with shoots from six to eight inches in length, but not with the best success by any means. I prefer, however, for several reasons, to have the shoots two or three inches in length when planted out. They should be set in good mellow soil, and with the top of the scion an inch or two above the ground. The sprouts from the roots should all be taken off when they are set.

I have grafted in the above manner for several years, and I believe with as good success as could be expected. I find, according to my books, (in which I keep regular lists of the varieties grafted each year, with the number set, also the number of each kind alive in the fall,) of one variety 137 set, and 124 lived; another, 204 and 190; 173, 165; 103, 102; this, to be sure, is better than the average, though no better than that would have been under favorable circumstances, but we out-westers have to use such stocks as we can get.

Root grafting in this way can be done at any time after cold weather sets in, though I do not like to commence before January, and should prefer waiting still longer or till February, if convenient, as it is rather difficult to keep them from starting too early, if done so long before spring. Should there be any roots or scions prepared that are not used the same day, they can be kept perfectly well in water over night, or even two or three days, if necessary. The regular

day's work grafting, as above, is 500, and it is not a hard task, after a little practice, where the tools and materials are good.

Very respectfully yours, &c.
F. K. PHOENIX.

From Downing's Horticulturist.
POMOLOGICAL GOSSIP.

Every body knows—we mean every body that knows the difference between pears and puppins—that Boston is the focus or centre of what may be called the *pear-mania*. At the annual shows of the Horticultural Society there, between two and three hundred varieties of this fruit are exhibited—a larger number by one-half, than are ever seen at the great shows of London, Paris, or Ghent.

It is the ambition of every fruit-grower in the circle of ten miles about Boston, to possess all the newest pears. Every little cottage garden has its Bartlett, and its Beurres; and many amateurs annually import from France, Belgium and England, the last novelty of the nurseryman's catalogues, at prices where guineas count as freely as shillings.

Boston has thus the credit of first introducing to this country many fine varieties of fruit at a much earlier date than they would otherwise have reached us. This precedence which she holds over New-York and other cities, is not owing to any superiority of climate and soil; for it is admitted that she is not remarkably fortunate in these respects; but to the taste, wealth, enterprise, and above all the rivalry, joined to the power of union, which exists among her citizens. In Boston, the intelligence and spirit of her citizens, always act *combinedly*, and thus effect much—witness her Horticultural Society. In New York they always act *individually*, and thus effect little—example the "Farmer's Club!"

Now that such a vast collection of pears has been accumulated in the country, we naturally look to the Boston cultivators, as having most thoroughly and repeatedly tested them, for some results. Every year the tables at the HORTICULTURAL HALL groan under vast contributions of pears; but the thousands of uninitiated visitors are, besides what may be gained by feasting the eyes, not much the wiser. *What are the results? What are really the best sorts?*

These are the questions which the planting community are now beginning eagerly to ask; and they are queries, which we hope the Society in question is making preparation to answer in its future great annual shows, by *labelling* conspicuously, "*FIRST QUALITY*," all those varieties which the fruit committee, composed as it should be of the soundest pomologists in Massachusetts, shall decide to be worthy of that distinction.

In the mean time, it has occurred to us, that a beginning might be made, towards some general results in pomology, by opinions gathered from various parts of the country, and laid before the readers of this journal. It is only by a large contribution of facts and results, from practical men, that we can ever hope to attain any thing like a generalization of our knowledge on this subject.

Such thoughts as these passing through our mind, when we made a brief visit to Boston in September last, we had the curiosity to ask a dozen of the most zealous experienced growers of the pear in that neighborhood, to commence the compendium of results, by answering the simple question "*which do you consider the three best pears—early, middle, and late—supposing yourself confined to three trees?*"

We passed our first night under the hospitable roof of the President of the Society, at *Hawthorn Grove*. Col. WILDER remarked that the question was difficult to answer, because it was so simple. He and many others have been, for years past, collecting and proving hundreds of sorts from all countries, and they had been so busily employed in testing, that little had yet been done in forming a summary of their experience. He frankly coincided with us in the opinion, that among the hundreds of sorts, with high sounding names, received from abroad, the really good ones could easily be counted by tens.

Col. WILDER has fruited this season over two hundred varieties of pears in his experimental grounds. He answered our question by naming the *Bartlett*, *Vicar of Winkfield*, and *Beurre d'Arenberg*.

On our expressing our surprise, that he should include the *Vicar of Winkfield* among so small a collection as three trees, he remarked that his high opinion of this variety was based upon a thorough trial of its good qualities, which were these—regular and great productiveness, never blowing off the tree, large, fair, unblemished fruit, and its remaining a long time in use. "True," he added, "the fruit is only second rate, but while it is fair quality for the table, it is excellent for a long time for cooking." Although he considered it a fruit not to be dispensed with, in even so small a selection.

Mr. WALKER, the worthy chairman of the Society's committee on fruits, we unfortunately did not see, but we learn that his opinion as to three varieties coincides with Col. WILDER.

Our next visit was to Mr. OTIS JOHNSON, at Lynn. We can scarcely convey to our readers our sensations of delight, at the extraordinary perfection of this gentleman's fruit-garden. He is one of the most zealous and untiring amateurs, and we have, nowhere in America, seen a garden devoted to this mainly, as this is, to fruit trees, in higher order, and trees themselves more perfectly managed. The pears are mostly dwarfs, many of them being trained in pyramid or in *quenouille* form, and all in the most healthy and satisfactory condition. We quickly saw that the knowledge of sound principles of culture here evinced, would produce results highly satisfactory in almost any soil or climate, however unfavorable naturally.

Mr. JOHNSON's answer to our question was, "*Bartlett*", "*Louise Bonne de Jersey*", "*Beurre d'Arenberg*," "*The Louise Bonne de Jersey*," he said, "is the most productive upon young trees of any pear I cultivate; and I think if I could have but three, I would be forced to include it; yet I may alter my opinion when the trees become older."

The persons we were next most desirous of questioning for results, were the cultivators at Salem, one of the surroundings of Boston most famous for its horticultural success.

At the *Pomological Garden*, the quiet and unpretending homestead of our late friend, that excellent pomologist ROBERT MANNING, we found every thing in excellent order, under the care of his sons. The elder son, Mr. R. MANNING, after some gardening chat, desired us to look among the numerous specimen trees in bearing, which we did with satisfaction. His answer to our inquiry was the following. "*Bartlett*", "*Beurre Bosc*", and "*Winter Nelis*." *Beurre Bosc*, Mr. MANNING could not but consider, on the whole, one of the very best of autumn pears.

Our correspondent, Mr. IVES, whose garden joins Mr. MANNING'S, and whose zeal and enthusiasm as a cultivator are well known, favored us also with his there select favorites, which are these—*Bartlett*, *Fon-*

dante d' Automne, and *Winter Nellis*. "You may be assured," said Mr. Ives, "that no autumn pear surpasses the *Fondante d' Automne*;" whereupon he placed in our hands a fine specimen of this luscious fruit, to stop our mouths and our objections at the same moment. It was, as indeed, we have always found this variety, truly delicious.

Our last pomological visit was to Mr. JOHN C. LEE of Salem. It was three years since we had visited his grounds, where we have always found a great deal that is interesting and instructive. We were now greatly pleased with the admirable management everywhere to be seen, the stock of new trees and plants imported from abroad, and the flourishing and healthy condition of all. The buckhorn hedges here, are perhaps the most perfect in the country, and particularly pleased us by the manner in which they were trimmed—in the shape of a perfect triangle or wedge, whose base was about four feet, and height about seven or eight feet.

Mr. LEE has tested a great many fine pears, but hesitated when called upon to decide at once upon three. He finally chose, as the three which his own experience would lead him to adopt—the *Bloodgood*, *Seckel*, and *Winter Nellis*.

There were several other gentlemen, experienced fruit-growers, about Boston, to whom we should have been glad to submit our primary question, but our limited time did not allow us to visit them.

Something, however, has, we think, been gained by our pomological gossip. We have at least ascertained for our readers nine pears, whose maturity is from early summer to winter, which are esteemed by the most experienced growers of this fruit about Boston, as the very best for that neighborhood, and we may add, for the whole sea-coast belt, of fifty miles broad, extending from Chesapeake bay to Maine. These are *Bloodgood*, *Bartlett*; *Louise Bonne de Jersey*, *Seckel*, *Fondante d' Automne*, *Beurré Rose*, *Vicar of Wakefield*, *Winter Nellis*, and *Beurré d' Aremburg*.

The *Bartlett*, it will be perceived, is almost an universal favorite. This is owing not simply to its size and good quality, but also to its regular productiveness, joined to its invaluable habit of adapting itself to every soil, and bearing while the tree is yet very young. *Beurré d' Aremburg* and *Winter Nellis* are about equally popular as winter fruits—the former being the best character, and the latter the most luscious in flavor.

Some of our readers may expect that after having successfully solicited the contributions of the leading devotees of Pomona around Boston, we are bound to contribute something ourselves before closing the books.

We shall do this very willingly, if they will allow us what speculators call a large margin. We must beg to be allowed two answers, though we would not allow our correspondents but one.

For all gardens to the east and south of us, we would recommend *Bartlett*, *Seckel*, and *Beurré d' Aremburg*. For all gardens to the north and west, *Bartlett*, *White Doyenne* and *Beurré d' Aremburg*.

SECOND GROWTH.—Dr. S. P. Smith has exhibited to us a bunch of apples, the second growth of the season, taken from a tree in his yard, which, he tells us, had on it the usual crop. He also informs us that the plum and peach trees in this county have very generally bloomed a second time during the season.—*Cumberland Civilian*.

The following is a letter from Major Jones, to the committee on compost manure heaps, of the Agricultural Society and Mechanics Institute of New Castle county, Delaware :

To the Committee

on Compost Manure Heaps :

The subscriber begs leave to state that on the 9th, of May last, he put up a compost heap on the Bommer principle *nearly*. That on the 18th, after heap was set, the thermometer stood at 142 degrees of Fahrenheit, when placed in a hole, made for the purpose, two feet below the top of heap; that on 27th the mushrooms were growing out of the side and top of the heap, and that in twenty days from setting, the heap, which was put up of dry wheat straw, would have done very well to haul out, if immediately ploughed under.

The subscriber would respectfully further state, that he set a compost heap on what he considers a much more economical and effective plan than the Bommer.—The base of which consisted of a lot of near one hundred acres; the principle ingredient was clover seed, sown after wheat and oats in the spring of 1845, at the rate of about one bushel of seed to five acres, on a good portion of which a light dressing of manure was spread, the autumn following the sowing of the seed; that in the spring of 1846 he gave this lot or compost heap a further dressing of one bushel of plaster to the acre. That during the month of August last he turned this said clover well under with a centre draft plough; and to facilitate the complete covering of which a heavy harrow was used to comb down the grass previous to ploughing: and that during the early part of the present month, September, he harrowed this land well with a set of small, light earramps, lengthwise with the plowing; then sowed with Pennock's drill 88 bushels of Mediterranean wheat on seventy five acres, including a part that was an oat stubble. This lot or compost heap had received a dressing of lime about ten years ago, of not exceeding about forty bushels of lime to the acre, but has neither been pastured or mowed the present season. This the subscriber considers the most economical and regular mode of making up, getting out, and spreading a compost, or dressing a field preparatory to sowing wheat, and gives a much better yield of wheat, and much less liable to fail, if of rank growth, than if manured in any other way.

TOBACCO.—On the 22d of December last the French government received contracts for the supply of 200,000 kilogrammes, 2,700,000 kilogrammes and 800,000 kilogrammes, of different descriptions of Kentucky tobacco. On the 22d of January, 1847, contracts will be received for the supply of 250,000 kilogrammes and 2,400,000 kilogrammes of Maryland tobacco, as also 1,800,000 kilogrammes of Virginia tobacco. It is said that the vast quantity of tobacco will, on the application of Mr. King, the U. S. Minister, be allowed to be brought to France in American vessels; and this circumstance has excited the bitterest hostility of the Bordeaux and other ship owners. Last year the government insisted on the employment of French vessels; and some promise was made in the last session of the Chambers that for the future none but French vessels should be employed in the conveyance of tobacco. Had this promise been adhered to, it would not only have caused great expense to France, but would have been an infringement of the navigation treaties between France and the United States.

TOBACCO CONVENTION.

The tobacco planters and buyers of other States have a considerable interest in the movement which is indicated in the following paragraph from the N. Orleans Picayune.

THE TOBACCO TRADE.—A convention of the tobacco growers of the Green River section of Kentucky—the largest tobacco portion of the State—was held in Glasgow on the 16th ult. Delegates were in attendance from the counties of Warren, Allen, Hart, Logan, Edmonson, Cumberland and Barren, and from the city of Louisville. The following resolutions were adopted unanimously:

Resolved, That the tremendous frauds practised against the tobacco interests of Kentucky, in the city of New Orleans, have justly alarmed not only the planter but the purchaser of tobacco, and imperiously demand of the farmer that he seek, not only new guarantees of his rights, but that he maintain them in his own hands.

Resolved, That all experience has proven that a home market is the best market whenever it is attainable; that this general and universal truth is particularly applicable to those foreign markets hampered by a Legislature over which we have no control.

Resolved, That the tobacco planters of Kentucky have been long enough "the hewers of wood and the drawers of water" for the satraps of New Orleans; and that the clearest dictates of policy and interest, both State and individual demand that they build up for themselves a market for their great staple at home.

Resolved, That a committee of five be appointed to draft an address to the tobacco planters of Kentucky, exposing the frauds and inconveniences of the New Orleans market, and setting forth the advantages of a home market for that staple.

SWINETY.—I have a recipe for curing swiney that I got hold of the other day, accidentally, just in time to cure a horse of mine that was taken very lame. And by the by, I got it for the trifling sum of six bits. I look upon it as being ahead of anything of the kind that is going; two or three applications being sufficient for my horse, and he was apparently well in two days.

Take the proportion of one pint of spirits of turpentine, one ounce of Spanish dies, half a pound of lard, half a pound of rosin. Melt the lard and rosin together; when party cool, put the other two ingredients in, and shake till thoroughly mixed.

I suppose that it is always well to bleed for the swiney the first thing. To apply the mixture, shake it well, and rub it in well with the hand, so as to get it into the hair thoroughly. Apply it freely to the part affected once in two days. In hot weather let the animal stand in the sun; in cold, heat it with a hot iron. It is perfectly safe and sure, and leaves no mark other than to take the hair off, which comes on again directly.—*Correspondence of the Prairie Farmer.*

THE LATE EPIDEMIC AMONG HORSES.—It is known to most of our readers, that a very fatal epidemic has prevailed extensively, the past season, in the country around this city, among horses. A medical friend, in whose opinions we have great confidence, and who has made some dissections, informs us that he considers the malady a malarious congestive fever, affecting specially the head. General bleeding has not been useful. The treatment from which most advantage appeared to be derived, consisted in the topical ab-

straction of blood from the head (that is, bleeding about one quart,) and the application of cold water to it, by means of cloths bound upon it; and internally the use of calomel, about two drachms daily, till the horse recovers. The disease has now ceased. Should it return, our friend thinks that the best means of preventing its ravages, will be to confine the horses to stables, especially during the night.—*American Agriculturist.*

From the Lancaster (Pa.) Union.

STRAW OF THE WAY-GOING CROP.

INTERESTING TO FARMERS.—At the late term of the November Sessions for this county there was a suit up for assault and battery, growing out of a dispute between a Landlord and a Tenant as to which party was entitled to the Straw of the way-going crop. In charging the Jury, the President Judge and his Associates delivered separate opinions, all agreeing that the Tenant, without a special contract to the contrary, had no right to remove the Straw. As the matter possesses considerable interest, we have obtained the opinions of the Judges and publish them for the benefit of all interested.

COMMONWEALTH } *Indictment for an Assault and Battery*
vs. } *upon Henry Hildebeitel.*

JESSE LUTZ.

The Prosecutor had been the tenant of the defendant's farm, and a dispute arose, after the expiration of the lease, in relation to the straw of what is called the way-going crop. The defendant insisted upon having the grain threshed out on the premises, in order that the straw might remain for the purpose of enriching the land. The Prosecutor claimed the right to the straw as well as to the grain, and was about conveying the grain in the sheaf from the premises. A dispute arose, in the course of which the defendant pushed the Prosecutor with his hands or fists in such a manner as amounted, in law, to an assault and battery, unless justified by the circumstances of the case. The next day the tenant was permitted to take the grain, including the straw, without further opposition. But this prosecution was commenced for the Assault and Battery. Some evidence was given of a special contract that the straw should remain on the premises; but the evidence was conflicting on the subject.

The President Judge, (Lewis,) after giving the opinion of the Court on other points in the case, remarked, that in civil causes he always endeavored to carry into effect the decisions of the Supreme Court, even in cases where he believed them to be founded in a mistake in the law. In cases where the right of property is alone concerned, the law has given the Court the control, and imposed upon it the responsibility. And for the sake of uniformity, it is important that this should be so. But in a criminal case the rule is different. The Commonwealth never desires the conviction of any of her citizens, unless in cases so free from doubt that the Court and the Jury may concur in the decision. And as the Court, in giving its advice to the jury in a criminal case, is not compelled to decide against its own opinion of the law, it cannot shift the responsibility of an erroneous opinion from the Judges who preside at the trial to any other Court. The opinion should therefore be in accordance with its own solemn convictions of the law—and should be such as it is willing to be responsible for to God and the Country.

Believing, as I do, that the decision in *Craig vs. Dale* is unsupported by any previous authority, and

that it is founded in a mistake of the law, I feel bound to express my individual opinion to that effect. The Judge who delivered the opinion in that case was remarkable for his industry and research, as well as for his integrity and impartiality. And the fact that he furnishes no authority to support his opinion, is strong evidence that none could be found. The moment the relation of landlord and tenant is created by the parties, the law enters into the contract and forms part and parcel of it, and the rights and duties of each are established and defined by law without any express stipulation in the contract. It requires no provision in the lease to bind the tenant to keep the premises in repair—to prevent waste, and to farm the land in a *husbandlike manner*. These are obligations implied by law and growing out of the relationship of the parties.—Nothing short of an express contract can relieve the tenant from the performances of these; the necessary duties of his tenure. The principles of good husbandry require that the straw raised upon the premises should be returned to the land; with the usual accumulations arising from the stock kept on the farm. This is the general custom of the State. It has existed from the earliest settlement of the country. No two intelligent farmers, acquainted with the business of agriculture, will differ in opinion on the subject. Any other course will impoverish the land, and thus operate injuriously to the tenant—to the landlord—and to the general interests of the community. It is no answer to say that lime, and other means of enriching the land, may be procured. These are well enough in aid of the natural sustenance of the land, but they are not regarded as a *substitute* for it. There may be cases where the owner may find it to his advantage to exchange straw for manure, or for the means of purchasing it. But these are exceptions to the general course of husbandry. The interest of agriculture, the custom of the State, the principles of good husbandry, and, as I believe, the law of the State is against the removal of the straw from the premises, unless the tenant has secured this privilege by the express provision of his contract. Entertaining this opinion, and believing that the decision in Craig vs. Dale will not be adhered to by the Supreme Court, I cannot advise that this defendant should be convicted of a crime, for no other offence than the moderate assertion of what nine-tenths of the farming community believe to be his right—a right sanctioned by custom—maintained by good husbandry—and which nothing but ignorance or infidelity in the tenant would induce him to dispute.

Judge GROSH expressed his opinion as follows;

GENTLEMEN:—Inasmuch as the President has addressed you in this case; not as a mouthpiece of the Court, but as an individual only, you will permit me to say a few words to you on the case before you, on the subject of *tenants leaving the straw* on the farm. I am an old man, and as far as my memory runs back, (i.e. half a century,) the custom has been invariably that the *tenant must leave* all the straw on the rented farm, unless a contract is entered into to the contrary; and I think it will not be disputed, that this custom has existed since the existence of our Commonwealth. Now if such is the fact, some good and substantial reason ought to exist against the custom before it be abolished; because every farmer knows that the custom exists, and *believe* it to be the *law* of the land. In addition to this, I am convinced that *very good* and substantial reasons go strongly in favor of the custom, a contrary rule would impoverish your land, and thereby greatly injure agriculture.

The jury, of course, will use their own judgment

as they have a right to do, but I have deemed it my duty thus to give you my experience.

Judge SCHAEFFER expressed his concurrence with the views of the President Judge.

FATTENING CATTLE.—At a late meeting of the Newcastle, (England,) Farmer's Club, an account of which we find in the *Agricultural Gazette*, Mr. Glover, the secretary, spoke of his mode of stall-feeding cattle. He said he was particular to have his cattle fed at stated times. The cattle, he said, "knew perfectly when meal time had arrived, and were restless and uneasy when disappointed of their food." He thought "cleanliness and a good supply of litter should never be neglected. To keep the skin clean, and use the currycomb liberally, tended to fatness." He remarked that the food should also be given with regularity as to quantity. "They should not be exposed to alternations of hunger and surfeit. The food of cattle should also be varied as much as possible. Like human beings they were fond of variety and capricious in their appetites. Two pounds of oil-cake, five pounds of barley-meal, and five pounds of hay chaff, with a plentiful allowance of Swedish turnips, had been recommended as a daily allowance.

He spoke of the use of linseed oil in feeding, which he said had been attended with much success. "The oil was sprinkled on good oat straw, layer after layer, at the rate of a gallon of oil to a week's allowance of straw. The straw to be frequently turned over, and kept two days before used: by which time the oil would be absorbed, and there would be a slight fermentation in the food." He described, also, the mode of making *Warne's Compound*, which is highly esteemed for fattening cattle. "He put 166 lbs. water into a boiling cauldron, and when boiling, stirred into it for five minutes, 21 lbs. linseed meal. Then 63 lbs. of crushed barley was sprinkled upon the boiling mucilage, by one person, while another rapidly stirred the mixture. This occupied another five minutes." It is then left to cool—if there is much fire it should be put out. It should be used the next day, or by being excluded from the air, may be kept longer. The quantity given to each bullock per day, is eight pounds, with hay or straw in addition. [A. Cultivator.]

THE SUGAR CROP.—Mr. Henry W. Moncure, in a letter addressed to the editor of the *Planter's Banner*, published at ATTAKAPAS, La., says:

"In your paper I observe the intimation that the sugar crop promised a fair yield, with a continuance of favorable weather. This view I held myself, derived from the advice of our correspondents from various parts of the State; but since my arrival in Louisiana, I have made diligent inquiries of all whom I have met, and they uniformly concur in the statement that the yield, so far as has been rolled, cannot equal the past season by at least one-third. I learn of none who will attain a crop equal to that of the past season, and very many indeed, who will not attain more than half. I am happy to add, however, that the quality generally will prove to be much better."

ST. JOHN THE BAPTIST, (Lou.) Nov. 29, 1846.

"The much dreaded crisis to the Sugar Planters has been realized. On the morning of 26th the sugar crop was seized with an icy grip, and destruction the consequence. The weather since has been unfortunately warm, which seals its fate, and fully a fourth may be regarded as lost independent of the very short crop prior to this calamity."

REV. MR. BURNAP, OF BALTIMORE,
ON THE SOURCES OF NATIONAL WEALTH.

What is wealth? In what does it consist?

Wealth is every thing that supplies human wants, natural or artificial. Here is, of course, an end to its multiplication. The artificial wants of mankind have no limits, of course wealth has no bounds, but the productiveness of nature, and the capacities of human industry. And what are human wants? The first is food. This can be procured only from the soil. Hence, the first and most universal of human pursuits is agriculture. The first item, in a nation's wealth is cultivated land. Before this, every other species of property dwindles into insignificance, and strange as it may seem, the greatest investment in this country, the most costly production of human industry, is the common fences which divide the fields from the highlands, and separate them from each other. No man dreams, that when compared with the outlay of these unpretending monuments of human art, our cities and our towns, with all their wealth are left far behind. You will scarce believe me, when I say that the fences of this country have cost more than twenty times the specie there is in it. In many of the counties in the northern states, the fences have cost more than the farms and fences are worth. It is this enormous burden, there can be no doubt, which keeps down the agricultural interest of this country, and it is freedom from it which enables the north of Europe, with a worse climate and an indifferent system of cultivation, to undersell us in the markets of England. There, travellers tell us, fences are almost unknown. The herds and flocks are under the care of herdsmen and shepherds, and thus an untold expenditure is saved, besides the loss of the land which the fences occupy and the accumulation of soil, that, with the most careful management, is apt to be thrown up around them by the plough.

The farmer contributes to the wealth of a country by his perpetual toil. Every thing begins with him. Every day of the year has its various and its continuous operations, all directed, however, to this one point, to bring the greatest quantity of produce from a given number of acres. Such is the nature of his work, that little can be done to expedite or shorten the process. Every foot of every field must be passed over by the plough. There are no fire-horses yet invented to do this at the rate of twenty miles an hour. The ploughman, therefore must rise early and work late. His labors too must be generally confined to the hours when the sun is above the horizon. In autumn and winter these are few. He must work the harder during that part of the year when the days are long. Every industrious farmer is continually adding to the substantial and permanent wealth of a nation. He is continually adding to the productive power, which is the best species of wealth. His savings, if any he makes, go back into the soil, to increase its fertility, or they go into fixtures, which add comfort or diminish the labors of all coming years. The savings of the farmer, and he cannot make any thing only by the most assiduous industry, increase the fund that is most wanting, especially in such a country as this, i. e. agricultural capital. The farmers of this country can do nothing, they say for the want of money. How are they ever to get it, but by the improvement of their farms? as things have been managed in this country hitherto, there has been a tendency to deterioration.

The radical mistake has been committed of suppos-

ing that the best investment for the farmer is the purchase of more land, whereas, in most instances the latter policy would have been the better cultivation of that which he already had. The plan has been to exhaust the soil of one field, and then turn to another. Such a plan can result in nothing but ruin. Nothing has been more neglected in this country than agriculture. The soil of the United States is capable of sustaining two hundred millions of inhabitants better than it sustains seventeen.

Eighty years ago the population of England and Wales was only six millions, and a most miserable living did they get, black bread, barley cakes, and oatmeal porridge, were the main food of the rural population. Since that time, the population has more than doubled, and, in ordinary times, fare better than half the number did then. Their annual agricultural productions have increased more than two hundred millions of dollars, and yet the productive powers of the whole island are scarcely as great as those of the single state of Illinois.

But agriculture, to flourish, must have a market for its surplus productions. And what is a market? Does that magic word reside in any place? most people seem to think so. A market is every where. It is people, not a place—people not engaged in agriculture, but employed in the production of something which supplies human wants. And the nearer it is found to the farmer's door the better, the less of his productions are spent in getting them to market. Agriculture can flourish, then, only where there is a large population engaged in manufactures and commerce.

The second source of national wealth is manufacturing industry. No nation ever became wealthy by raising the raw material, and then exchanging it for the manufactured article. The manufacturing people always have the advantage. They may work day and night, summer and winter, in fair and stormy weather. An agricultural population work only in the day time, when the earth is free from frosts, and when the clouds are not disburdening themselves upon the earth. A manufacturing population can avail themselves to any extent, of the aid of machinery. The fall of water in the town of Lowell is made to do the work of a million of human beings. Every thing the farmer raises must be brought out of the earth by main force, by hard work. The farmer's productions are bulky, and are often almost consumed in getting them to market. The manufactured article is usually comparatively light in proportion to its value. The farmer, moreover, is obliged to take the chances of unpropitious seasons, and occasionally a short crop. But no variation of the seasons has ever been known to produce a short crop of boots and shoes, and drought has never been so great as to blight the labors of the loom. With these advantages, a manufacturing people will always continue to keep an agricultural people in debt. Towns and cities will spring up among them, and the very fact of a condensed population gives them great advantages. An exclusively agricultural people, in the present age of the world, will always be poor. They want a home market. They want cities and towns, they want a diversity of employment. They want that enterprise and activity, which is engendered merely by bringing masses of people to act upon each other by mutual stimulation and excitement. Why is the balance of trade continually in favor of the North? Because our labor is not sufficiently diversified, because the raw material goes from this very city to the north to be manufactured, and then comes back to be

worn by our citizens, while we have among us thousands and thousands who might work it up, but who are lying here idle, and many of them supported by public charity!

One of the postulates of national wealth, is education, universally diffused. It is this alone that can give skill to the hand, and wisdom in the general conduct of affairs. Without that, the physical power of a nation is like the strength of the sightless Cyclops, working in the dark. Physical strength is generally available in proportion to the intelligence by which it is guided. Most of our readers have heard of the Lowell Offering, a periodical written exclusively by the girls, who are engaged every day in carding, spinning, and weaving. Mr. Dickens tells us that he carried home a number of that work, as one of the most wonderful phenomena of the western world. I was told myself, at that place, by one of the superintendents, that the principal writers in that publication were the most profitable operators in the several establishments, obtained the highest wages, and made the best use of their money. So, after all the sneers which are cast on literary ladies,—to them blue stockings is no disqualification for the most common employments of life. So it is, all the world over. The schoolmaster's wages is an investment which yields, in an economical point of view, the highest per centum.

It is to enlightened education that we must look for the extinction of that false sentiment, so adverse to the true prosperity of a nation, the degradation which sometimes attaches to personal toil. No community can ever grow rich, when it is thought to be more respectable to be a genteel loafer, than to get an honest living by the labor of the hands.

No nation can be prosperous and rich without a good government. And what is a good government? It is one which protects, instead of making war upon property. It is one which hallows the marriage between capital and labor, two things, which God's providence has joined together, and nothing but human folly will ever put asunder,—a union from which preceeds the fair family of industry, wealth, contentment, harmony, peace. Once divide them, and the whole structure of society is broken up.

THE COTTON WORM.—IMPORTANT FACT.—The Natchitoches Chronicle mentions a discovery in relation to the destroyer of the Cotton plant, which it may be well for every Planter to know and remember. Mr. Gilmore of that Parish planted, last Spring, within his field of cotton a piece of ground in indigo; thinking that it would yield more indigo than would be necessary to furnish his family, he ploughed a part of it up, and put in cotton. Thus ploughing it before it had germinated, he scattered the seed over his cotton land, and many stocks of it grew with the cotton.

When the worms began to devour the cotton, he found to his surprise that the stocks near the indigo were untouched by them. They left, or rather kept away, from the rows near the indigo patch.—The odour from the indigo plant is known to be purgent, and disagreeable; this may have repelled the worms, if they have the sense of smell, as all sensible worms ought to have.—*N. O. Bee.*

LARGE ESTATE.—Charles Augustus Murray, son of an English Peer, owns 30,000 acres of land in Wisconsin, which he purchased at a government sale.

FLORICULTURAL.

JANUARY WORK—FLOWERS.

Prepared for the Farmer, by Samuel Feast, Florist.

Green house Plants.—Give these plenty of air every fine day, and attend to watering carefully.

Camellias., will now be blooming and will need plenty of water.—Attend to syringing, & sponge the foliage whenever it becomes dusty—do not allow the temperature of the house to be below 40° Fahrenheit, if you wish them to bloom finely.

Azaleas will now be advancing rapidly, and should have plenty of water.

Geraniums.—Repot these, and keep the temperature of the house, from 50 to 60°, and give an abundance of air, whenever the weather will admit. Do not forget to water, if you wish a good bloom—Fumigate with tobacco as often as necessary.

Lilium Lancifolium, and its varieties, should be potted, into 4 or 5 inch pots, (according to the size of the bulb) in light rich soil, about the middle of the month—Give moderate supplies of water, until they commence to grow.

Roses in pots, should have plenty of air and where they are in a growing state, plenty of water.

Cactuses should be kept dry this month.

Tulips, **Hyacinths** and other spring flowering bulbs, should be planted at once, (if not already done.)—**Hyacinths** may yet be set in glasses—those already planted in pots or glasses should be brought to the light.

Plants in frames, must have as much air as possible, during fine weather.

Verbenas will need repotting near the end of the month.

METEOROLOGICAL TABLE, FROM 27TH NOVEMBER, TO THE 28TH DECEMBER.

Kept at Schellman Hall, near Sykesville, Carroll co. Md. Taken at 6 o'clock, a. m., 2 o'clock, noon, and at 6 o'clock, p.m.

Wind.	Temperature	Remarks.
27NW NW W	19 31 32	Cloudy
28NW SW S	36 53 48	Clear
29W W W	41 50 43	Clear
30W W S	31 41 35	Clear
1NE E W	29 39 36	Cloudy Hail Snow Rain
2SW SW S	39 50 52	Fog Cloudy Clear
3SW SW W	53 53 48	Clear
4W W W	35 43 37	Clear
5NW SW W	23 41 33	Clear
6W W E	29 38 33	Cloudy
7SE E E	36 34 33	Snow 2 inches Rain
8SW SW S	35 53 50	Fog Cloudy Fog
9NW W W	39 43 39	Clear
10NW E E	25 43 39	Clear Rain Hail Sleet Snow
11W W W	34 38 36	Cloudy
12W W W	39 39 35	Clear
13W W W	26 37 33	Clear
14W W W	33 41 36	Clear
15W W W	22 36 35	Clear
16W W E	18 37 23	Clear
17NE NE N	27 28 30	Snow 4 inches
18W W W	30 38 33	Clear
19W W N W	31 37 39	Clear
20WNWNWNW	39 30 27	Cloudy Clear
21SW SW S	95 41 31	Clear
22SW S S	27 45 41	Clear
23NW W W	26 37 31	Clear
24W W W	94 34 34	Clear
25W W W	36 45 43	Cloudy, Clear
26NW SW SW	39 46 37	Clear
27SW SW S	39 33 30	Clear
28SW SW	50	Clear

BALTIMORE MARKET, DEC. 29.

COTTON, no importations, holders have advanced their rates about 4 to 4 ct. per lb., but buyers are unwilling to accede to it;—**Coffee,** nothing doing of moment—**Feathers,** best, 29a30, scarce, common plenty, sales at 22 to 25c;—**Hops** 10a-12c. per lb.—**Molasses,** N. O. nominal, at 32a-33; inferior Cuba stock large—**Spirits Turpentine** 45a50—**Tar**, \$2.12^{1/2} per bbl.—**Oil,** Winter sperm at 110 to 114, Linseed 64c.—**Plaster** \$2.45a 2.60 per ton—**Rice** \$3.75a\$4 per 100 lb.—**Sugars,** none in first hands, and is in demand—**Wool,** a number of sales, in small lots, at 21a24c. for common washed, 27 for half blood, and 30a-37c, for fine fleece, stock equal to the demand—**Wood,** hickory \$5a5.50, oak \$4a4.50, pine 2.75a3.50—**Stone Coal** \$5a6 per ton—**Hay,** prime timothy \$15.—**Cattle,** on Monday the supply of Beeves at market was small, and there was a good deal of activity at improved prices. The offerings were 313 head, of which 285 were sold, and 28 head remained over. Prices ranged from \$2.75a3.50 per 100 lbs. on the hoof, equal to \$5.50a6.75 net, and averaging about \$3.12^{1/2}—**Hogs**—Live hogs are bringing advanced prices—sales were made to day at \$4.87^{1/2}a5.12^{1/2}.—**Flour**—The market for Howard Street Flour is dull and we do not hear of any transactions of moment. Holders are asking \$4.87^{1/2} and \$4.75 is offered. The receipt price from cars is unset led. We note a sale of about 400 bbls. City Mills Flour \$4.87^{1/2}. Most holders ask \$5, but there is very little inquiry. Susquehanna Flour is held at \$4.87^{1/2}, with small sales. **Grain**—The supplies of Wheat are small. Sales of good to prime reds at 90a100 cents, and of ordinary to good at 80a90 cents. Sales of Corn at 50a57 cts. for white, and 50a60 cts. for yellow. We quote Oats at 31a32 cts. **Provisions**—Holders are asking advanced prices for Pork. Old Mess is held at \$10.50 and Prime at \$9a9.50. Mess Beef \$10.75a11; No. 1 at \$9a9.25, and Prime at \$7a-7.25. Bacon is not active. Sales of old Sides are making in small quantities at 5¹/4 cts., of Shoulders at 5a5¹/4 cts.; and of Hams at 7¹/4 cts. Lard in kegs is held at 8 cents and in bbls. at 7a-7¹/4 cents. **Whiskey**—We note Sales of hhdls. at 20¹/2 cts. and of bbls. at 22¹/2 cts. **Rye Flour**—We quote nominally at \$4—none of account in market. **Corn Meal**—Sales of 1400 bbls Maryland Corn meal at \$3.62^{1/2} per bbl. It is worth \$1.20 per 100 lbs. **Buckwheat Meal**—We quote at \$2 to \$2.87^{1/2} per 100 lbs. according to quality. **Beans**—Sales at 98 to \$1 per bushel. **Peas**—The supply is moderate and the demand fair. Sales of about 500 bushels at 80 to 85 cts. **Seeds**—There still continues to be a good deal doing in Clover. We have sales of 150 bushels prime Pennsylvania at \$4.50. Very little as yet of Ohio has come forward, what is here is held at \$4.50. **Flaxseed**—We note sales in lots at 125 cts. per bushel. **Tobacco**, the stock of good and finer qualities are nearly sold out, but there is a large quantity of com. and infer. sorts, which is with-

out much demand; the prices of which however, have grown firmer. We quote as follows, viz: Md. \$1.50 to \$2, for inferior and common \$2a4 for good common; \$4a6 for good; \$6a12 for fine and better qualities; Ohio common to middling \$1.50a2.50; good \$5a6; fine reds \$5a9; fine yellow \$5a10; extra kinds \$10a12. The inspections for the last four weeks, are, Md. 251 hhdls; Ohio 637; Ky 3; Total 3151 hhdls.

EZRA WHITMAN'S WROUGHT IRON RAIL-WAY Horse Power and Threshing Machine, of which more than one thousand are now in use—and this is the only Horse Power or Threshing Machine that has given general satisfaction, I take pleasure in giving a short description of it, with a list of prices.

1st. The frame of the Horse Power is made with five posts, on either side, and as many cross girders bolted together with wrought iron in the most substantial manner.

2d. The Rail-way, guides, circles, and all the connecting and fastening irons, are made of wrought iron, instead of cast iron.

3d. The gearing is at the end of the Power, where it is not affected by the wear, or liable to be broken by wild or false horses.

4th. It being made of wrought iron, there is no difficulty in giving sufficient width for the horses to travel with ease, and no more rods, wheels or fastenings in the two horse power, than in the one horse power.

5th.—Farmers wishing to purchase, will be particular to observe the above, as the great success of my machine, may bring others, of inferior construction, into our market.

I have the pleasure of referring to either of the following named gentlemen farmers, residing in the immediate vicinity of Baltimore, who have purchased my Horse Power and Threshing Machine the past season, and who will no doubt be willing to give information respecting their utility, viz:

Jesse Slingsby	James Swan	George Harriman
Jacob Forney	William Gent	Daniel Bowly
Thomas J. Talbot	Owen Cecil	A. M. Johnson
Joseph Parks	George Jenkins	Charles R. Barne
Frederick Harrison	John Rider	Samuel Hutton

The cash prices for those articles are as follows, viz:

For Two Horse Power, \$100—For One Horse Power, \$75—with an additional charge for extra long shaft and extra pully, \$5. For Thrasher which thrashes and cleans at one and the same operation, \$100. For 34 inch Thrasher, with new improvement, \$50—90 inch do. with do., \$45—16 inch do., \$10. The prices of common Thrashers vary from 25 to \$35.

EZRA WHITMAN, Jr.
No. 55 Light street near Pratt.

AGRICULTURAL IMPLEMENTS for sale at No. 7 Bowly's wharf, Baltimore, by **W.M. GAWTHROP & SON.**

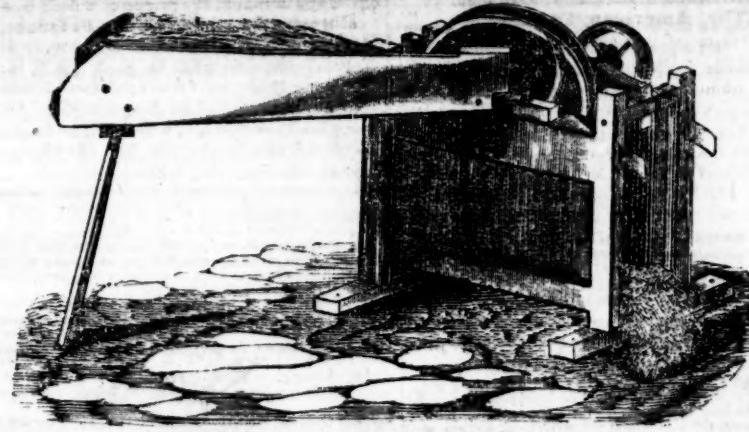
We offer to Farmers and Planters our Premium Double Corn Shellers, which have proved themselves to be the very best now in use—we have on hand one of the best selections of PLOWS in the state, the castings of which are the composition metal, with chilled heels, points and edges; our plows embrace the Minor & Horton from 6 inch. to 12, so much used in the North; it is one of the lightest draught plows in use—we have the Wiley improved, and the old pattern of the N. Y. manufacture, which is known without comment. Also, the Prouty, Chenebeth, Self-sharpening, Davis, and all other kinds; Plow Shears and Points for all kinds of Plows; Fans, Straw Cutters, Corn and Cob Crushers, and all other kinds of Implements used in farming—we also keep all kinds of Field Seeds—we do a general commission business in Grain, Seeds and Country Produce.

A YRSHIRE BULL FOR SALE—He is about 16 years old and of the stock imported by Dr. Hoffman, and is in excellent order—Price \$100—Address **B. C. HOWARD,** Nov 1 Baltimore.

AGENCY FOR THE PURCHASE AND SALE OF IMPROVED BREEDS OF CATTLE AND SHEEP.—The subscriber takes this method of informing his friends and the public, that he will attend to the purchase and sale of the improved breeds of cattle, sheep, swine, poultry, &c., for a reasonable commission. All letters post paid, addressed to him at Philadelphia, will be attended to without delay.

Nov. 1 **AARON CLEMENT.**

TO FARMERS & GARDENERS—The subscriber has always on hand a fine assortment of GLASS for GREEN HOUSES, HOT-BEDS, &c. of all sizes and qualities, which will be sold at lowest market rates. **W. A. WISONG,** Nov 1 **No. 2N. Liberty st. Baltimore.**



ROYER'S FODDER CUTTER AND GRINDER.

THIS is an implement very desirable for cutting straw and hay—also particularly adapted to cutting Corn Fodder. The advantages of cutting and grinding corn stalks for feed, has become of such importance that it must give the farmer great satisfaction to learn that Mr. Royer has succeeded in getting up an article for this purpose, which is very simple and

durable, and will cut and grind at the rate of 300 to 300 bushels per hour; and from the satisfaction expressed by those now using the article, there can be no doubt that ere long it will become generally adopted. The price is \$20, and for sale at the Warehouse of E. WHITMAN, Jr., 55 LIGHT-STREET, Baltimore.

LIME—LIME.—The subscriber is prepared to furnish Lime from his depot at the City Block, Baltimore, ALUM STONE LIME of the purest description, deliverable at any point on the Chesapeake Bay or its tributaries, at such prices as cannot fail to please.

He is also prepared to furnish superior building Lime at 25 c. per bushel, in hds., or at \$1 per bbl. E. J. COOPER,
City Block, Baltimore.

THE SUBSCRIBER takes pleasure in returning thanks to the many gentlemen who have favoured him with their MILL-WORK; also to the farmers and planters for their liberal support in the Machine line, and would respectfully inform them, that his endeavors to please will continue unremitting. He is prepared at all times to build any of the following kinds of MILLS. Overshot, Pitch Back, Breast, Undershot, Reeling, Steam, Wind, Tide, Horse-power, or Tread Mills; and having the best of workmen employed at pattern and machine making, he can at all times furnish the best articles at the lowest prices, such as Horsepowers, Pettigrew Shellers, Murray's Shellers, 4 kinds hand and power Shellers, portable Mills adapted to any power, Corn and Cob grinders, Straw, Hay and Fodder Cutters, Carry-log and Mill Screws; also manufacturers Hoisting Machines, Hoisting Cranes, Pile Drivers, Turning Lathe and Steam Engines; and any kind of Machine, Model or Mill-work built to order. Any kind of Castings and Smith-work at the lowest prices. I warrant all Mills planned and erected by me to operate well. **JAS. MURRAY,**

Millwright, York now Light St. Baltimore.

Also for sale, Jas. Murray's patent separating Shellers, which shills and puts the corn in perfect order at the same time, for the mill or for shipping—Persons living near the city can bring with them one or two barrels of corn, and give the sheller a fair trial before purchasing.

He has also for sale, the following second hand Machinery: 2 pair 4 ft 6 in. French Burr Millstones, with all the gearing; 1 pair 3 ft 6 in. French Burr Millstones, with all the gearing; and some Saw Mill work—the whole are good, and any or all of the above will be sold low.

The "Simon pure," and invincible WILEY PLOW still in the field—A. G. MOTT, at No. 38 ENDR STREETS, near the Bel-Air Market—Manufacturer and Vender of Implements of Husbandry, viz. Plows, Harrows, Cultivators, Grain-Cradles, Wheat-Fans, Corn-Shellers, Straw-Cutters, Endless chain Horse Powers, Threshing Machines, &c. &c.—through this medium, would apprise the agricultural community of the fact, that he is the only manufacturer in the "Monumental city" of the GENUINE WILEY PLOW (right and left hand) composed of the real "simon pure" and justly celebrated New York composition, chilled castings, the points of which, are warranted to stand the most rugged soil equal to steel, at a cost of about two cents per acre, for blacksmith's bill.—If you are bargains, call, or send your orders, for his implements good as the best, and cheap as the cheapest, for cash, and delivered in any part of the city free of charge.

NOTICE.

CLAIRMONT NURSERY,
Near Baltimore, Md.

We again take pleasure in notifying our various customers and the public, that the time has nearly arrived for transplanting Trees, &c., and consider our stock of fruit trees superior to what they have ever been before both in quality and in quantity, as we have had an opportunity of testing their correctness from our standard Trees which are extensively bearing.—We deem it unnecessary to enumerate the various kinds of fruit and ornamental Trees, Shrubbery, Roses, Green House plants, Flower roots, &c. &c., suffice it to say, our Nursery and Seed Garden occupies about 100 acres of the Farm, and our determination is to give satisfaction if possible, both in price and quality—printed Catalogues, giving our prices, will be sent gratis; where large quantities are wanted considerable discount will be made. Letters addressed to R. Sinclair, Jr. & Co., Light St., Baltimore, or the subscribers, Balt. Md. will meet with prompt attention.

Persons wishing to act as Agents will please let us hear from them. Oct 1 SINCLAIR & CORSE.

AGRICULTURAL IMPLEMENTS—LABOR SAVING MACHINERY.—**GEOGE PAGE**, Machine Manufacturer, Baltimore st. West of Schroeder st. Baltimore, is now prepared to supply Agriculturalists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in his line. He can furnish Portable Saw Mills to go by steam, horse or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from \$85 to \$200, and each simple, strong and powerful. His Horse Power & Threshing Machine, he is prepared to supply at the low price of \$125 complete; the Threshing Machines without the horse power, according to size, at \$30, 40, 65 and \$75; Improved Seed and Corn Planter, portable Tobacco Press; Portable Grist Mills complete, \$12.

OLD AGRICULTURAL ESTABLISHMENT.

JS. EASTMAN, at his old stand, now No. 180 PRATT STREET, has on hand, for sale, a large assortment of superior PLOUGHS and PLOUGH CASTINGS, at Wholesale & Retail. Harrows, Cultivators, Wheat Fans, Threshing Machines, Horse-Powers, Corn-Shellers, Corn & Cob Crushers, &c. &c. With a supply of his superior Patent Cylindrical Straw Cutters of all sizes, as he is now getting a supply of the 11 inch size, of which he has for some time past been out of—also, for sale some twenty odd volumes of the American Farmer, which will be sold low, a great portion of them are bound.

dec 1 ff

The American Farmer:

The 2d volume of the new series of this journal commenced on the 1st of July, 1846—It is issued on the 1st of each month.

Terms:—Single copies \$1—Six copies for \$5—Thirteen copies for \$10—Thirty copies for \$20.

Sample Nos. will be sent to any one desirous of aiding in the circulation of the "Farmer."

Address SAMUEL SANDS,
122 BALTIMORE STREET, BALTIMORE.

THE following NEW AGRICULTURAL MACHINERY are in progress, and will be for sale by SINCLAIR & CO., of this City, during next Spring and Summer, viz:

A MACHINE FOR DRILLING POTATOES, requiring less than half the quantity of Seed usually planted, setting the plantings with the utmost regularity.

A HORSE DRILL, for planting CORN, BEET, and other seeds.

A MILL for grinding CORN MEAL for plantation use.

A CORN BUSKING OR SHUCKING MACHINE.

A MACHINE for cutting and splitting CORN STALKS.

A New Double Vertical Corn Sheller for hand-power.

Their Threshing Machines, Horse Powers, Corn & Cob Crushers, Plows, Corn Shellers, Straw Cutters, &c. are also undergoing some improvement and will be brought out this year in a new dress.

JAN. 1

DURHAM BULL.

A young bull, of undoubted purity of blood, and fine form, pure white, with a little roan about the ears, got by Mr. Parine's *Magnum Bonum*, grandson of Holtzovier's "Baltimore Beauty," a fine cow gotten in England, but dropt in this country. Price \$50.—Apply to S. SANDS, office of the FARMER.


PRUNING OF FRUIT TREES.
As from now, to the latter end of February is the proper time for the general pruning of Trees, Shrubs, &c., the subscriber would respectfully offer his services in that branch of his business and begs to assure those who may employ him of his capacity to render satisfaction. JOHN TUOMAY,
PRACTICAL GARDNER, corner of Hoffman & Garden sts.
Baltimore.

Orders left at Saml. FEAST & Son's Exotic Nursery, corner of Charles and Saratoga streets, or at the office of the American Farmer, will meet with prompt attention. Jan 1

A FARM FOR SALE in Baltimore county, 13 miles from the city on the Harford Turnpike road, adjoining the lands of Judson M. Duckett, and the late James S. Gittings, containing 200 ACRES, more or less, in a good state of cultivation, having all been tilled within a few years—the Long Green Run passes through the farm and has a fall of 10 or 12 feet, which could easily be improved for manufacturing purposes—there is a fine young apple orchard of the most choice fruit, having recently come into bearing. The improvements are good, consisting of a STONE DWELLING, 60 feet by 29, two stories high; Barn, Stables, Stone Dairy, Meat House, &c. he subscriber's health not permitting him to attend to it, it will be sold a great bargain and the terms made easy. For further particulars enquire of Saml. Sands, Office of the Farmer, or the subscriber on the premises.

JAN. 1

ROBT. L. HALL.

PLoughs! PLoughs!!

The subscriber is manufacturing Ploughs of various patterns and of different sizes; also Wheat Fans, Cylindrical Straw Cutters, Corn and Tobacco Cultivators, CORN SHELLERS, &c. Also, THRESHING MACHINES and HORSE POWERS—these latter are used by the following gentlemen, to whom reference is made, as to their superior value, viz. Messrs. S. Beard, T. Beard, Dr. Watkins, T. J. Hodges, T. Welsh, W. Mackall, J. Igelhart, A. Selliman, W. Hopkins, J. Kent, G. R. Gaither, all of Anne Arundel county; and to Messrs. R. H. Chew, J. Y. Barber, W. Boswell, G. W. Weems, and Z. Howes, of Calvert co. Md. (etc)—Those wishing to examine the above articles are invited to call at my establishment in Gillingham alley, entrance from Howard st. 4 doors from Pratt st. Baltimore.

1mth

CHAS. H. DRURY.

MANAGER WANTED.—One who can be well recommended, and accustomed to managing slaves, is wanted to take charge of an estate on the Eastern Shore of Va.—As the owner is much absent, he must be a first rate man, and capable of producing testimonials to that effect. Apply (if by letter post paid) to the editor of the Am. Farmer. Dec. 3, 1846.

Christmas and New Year Presents.

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